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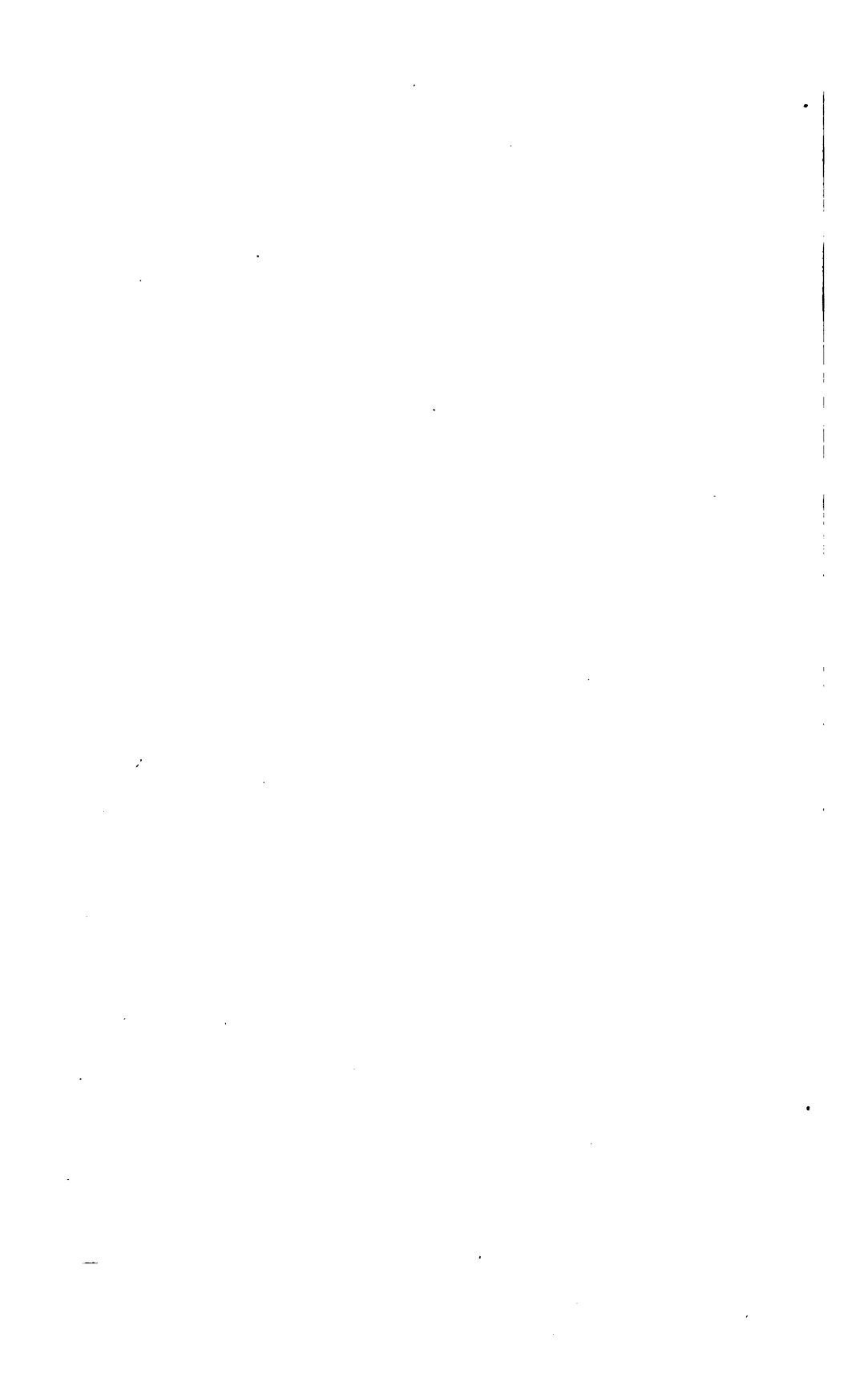
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Harvard University





THE
MUSEUMS JOURNAL,

THE ORGAN OF THE MUSEUMS
ASSOCIATION.

EDITED BY

E. HOWARTH, F.R.A.S., F.Z.S.,

Museum & Art Gallery, Sheffield.

★

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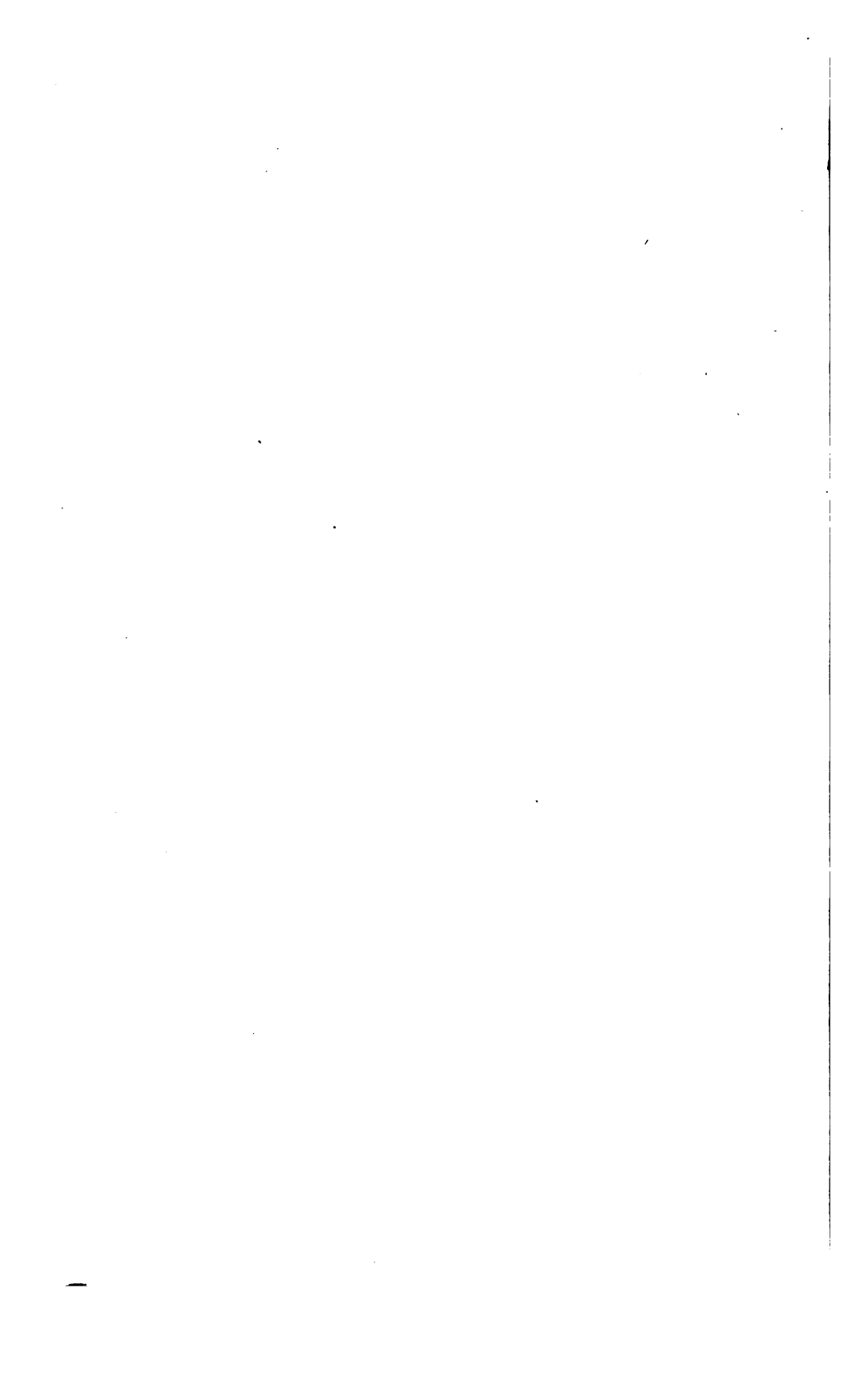
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CORRIGENDA.

Page	57,	line	10,	from	below,	for	“ prominent ”	read	“ long-standing.”
„	169,	„	8,	„	„	„	“ rings ”	read	“ wings.”
„	217,	„	16,	„	„	„	“ gazette ”	read	“ gazelle.”
„	249,	„	5,	„	„	„	“ Nacnair ”	read	“ Macnair.”



THE MUSEUMS JOURNAL.

Vol. 7.

July, 1907.

No. 1.

Museums Association.

ANNUAL REPORT OF THE COUNCIL, SUBMITTED AT THE
DUNDEE CONFERENCE, 1907.

DURING the past year only one museum has resigned its membership, while four other museums and art galleries have joined the Association, a steady increase of ordinary members, which has been continuous since the formation of the Association 18 years ago. Within that time only three museums have withdrawn, two of these founded by private individuals, whose subscriptions ceased at their death, while the other belonged to a private society. It is striking testimony to the estimation in which the Association is held that not a single public museum or art gallery has resigned its membership since its inauguration.

Associate members are less constant, some who join for the local meetings each year resigning after the conference, though there is enough interest aroused to cause many to retain their membership. At Bristol last year 42 local associate members joined the Association, and several of these are continuing their membership, thus making the number of fresh associates twelve, which about balances the losses of the year, for 6 associates have resigned, four have been removed by death, and two have lapsed through non-payment of subscriptions.

The issue of the Journal has proceeded on the same lines as in previous years, the last volume being the largest of the series, and there has been an increased demand for back volumes.

Two subjects were remitted to the executive committee, and they have had them under consideration. The first was to ascertain the best method and the cost of registering the Association. On taking legal advice it was suggested that the Association should be registered under Section 23 of the Companies' Act, 1867, which would require an application to the Board of Trade. As the total cost of this would be about £90 it was decided not to proceed with that form of registration, and the solicitor was instructed to ascertain if the matter could not be completed under the Friendly Societies' Act, or in some other cheaper way.

The other subject relating to the publication of the Museums Directory in separate form was announced in the Journal, and those who were willing to subscribe for a copy were asked to communicate with the secretary. The responses were so few that it was felt it would not be desirable to go to publication before bringing the matter before the members in a more direct way, and it has been decided to issue a separate circular inviting members to fill up an order form. At least 150 subscribers should be secured before the work is proceeded with, and with that number the cost would be about 7s. 6d. per copy. With a larger number of subscribers there would, of course, be a corresponding reduction in the cost.

The executive committee have considered the invitations from Ipswich, Maidstone and Chester to hold the annual conference in those places, and on their recommendation the council have decided that the next meeting, in 1908, shall be held in Ipswich.

The president (Mr. John Maclauchlan) and the hon. general secretary (Mr. E. Howarth) represented the Association at the Federal Conference on Education in London, in May, and both took part in the proceedings of the museums section, of which Lieut-Col. G. T. Plunkett, C.B., was president. There were numerous delegates present from the colonies, as well as representatives of our national museums, and important papers on museums in relation to education were read and discussed.

MUSEUMS ASSOCIATION.

INCOME AND EXPENDITURE FOR THE YEAR ENDING JUNE 30TH 1907.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
Balance from previous year	59 0 0½	Printing and Stationery	6 14 6
Members' Subscriptions, 1905	3 3 0	Expenses of Bristol Meeting	7 14 4
" " 1906	89 2 9	Reporting Discussions	5 8 6
Associates' Subscriptions, 1905	3 13 6	Cablegram	0 19 0
" " 1906	65 1 11	Deed Box	0 18 9
Advertisements	17 17 0	Hire of Room for Stock	6 0 0
Sale of Journals	31 5 6	Binding of Journal	3 0 9
Sale of Reprints and Blocks	4 13 9	Printing " (13 months)	128 8 0
Dividends on Corporation Stock	2 17 0	Postage	17 9 0
Bank Interest	1 1 9	General Secretary—Assistance	23 10 0
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Capital—£100 Sheffield Corporation Stock	£277 16 2½	News Cuttings	4 4 0
	90 0 0	Banker's Commission
	<u>£377 6 2½</u>		£219 2 11
Balance brought forward.. .. .	58 13 3½		
Members' Subscriptions, 1907	£6 6 0	Balance.. .. .	58 13 3½
Associates' " 1907	7 17 6		<u>£277 16 2½</u>
	<u>14 3 6</u>		
	<u>£72 16 9½</u>		
Subscriptions due—Members	£10 10 0		
Associates	4 14 6		
Due for Advertisements	11 5 0		
	<u>£26 9 6</u>		

Audited, found correct,

JOHN T. BROOKS,
ALFRED LANCASTER, } Auditors.

W. H. BRITAIN, Treasurer.

Museums Association.

DUNDEE MEETING, JULY 9TH, 1907.

PRESIDENTIAL ADDRESS.

By JOHN MACLAUCHLAN, F.R.P.S., F.R.S.G.S.

THIS, the programme tells us, is the 18th annual meeting of the Museums Association, and, in formally opening it with an address, I feel it to be my duty to ask, and, if possible, to reply to the very natural question, "Has this Association so far justified its existence?—Has it accomplished the purpose for which it was instituted?—and, with its growth in years, has there been a corresponding increase in efficiency? As a foundation member of the Association, keenly interested in its work, and a regular attendant at its meetings, I possess sufficient knowledge, and I hope sufficient impartiality, to give an honest reply to these questions, a reply not in the slightest degree influenced by natural enough esprit de corps or personal bias. All the more so, because, when the Association was first suggested my attitude towards the proposal was quite as much critical as enthusiastic. Yet, any doubt I entertained soon vanished, for the success of the Association was not only immediate but steadily progressive. My region of doubt was never a very cloudy one, and I soon passed out of it into the "serener atmosphere, the purer air" of fully satisfied hope, of settled conviction. I am speaking in the hearing of many who, like myself, have been members of the Association since its establishment, and, without exception, these will emphatically endorse my opinion that it has proved an enormous benefit to all engaged in the many varieties of museum and art gallery work, whether as members of committees of management, or as officials.

Other, and perhaps quite as important benefits have been derived from its meetings and its discussions by the various towns in which these have been held. Except in

the capitals, where museums are handsomely sustained by the State, and in the very large cities, where municipal resources are great, and are generously applied for this purpose, the provincial museum and art gallery too frequently enjoys a small and indefinite income, and the revenue necessary for its adequate support is hardly understood. The importance of the work the Association's meetings have performed in calling attention to this regrettable feature, and in educating public opinion in the matter, cannot easily be over-estimated. This can hardly be called a merely accidental benefit, as, from the very outset, it was one of the most important aims the organisers of the Association had in view, and it would serve no good purpose to institute comparisons between it and the more personal aspects of the work which has been accomplished.

To praise, or even to state at length, the far reaching benefits the professional members of the Association derive from its annual meetings and from its ably conducted monthly Journal would indeed be a work of supererogation. Instead of so wasting your time, one gladly prefers to sum it up in one or two old yet ever young sayings. If we meet together once a year for a week or so, and listen to able papers read by men who have specially studied difficult subjects dealing with branches of our enormously varied work, and engage in frank but kindly discussion on the views expressed, are we not attaining the proverbial benefits eulogised by the "wise man"—"iron sharpeneth iron, so a man changeth the face of his friend," and securing that "safety," which he assures us is to be found "in the multitude of counsellors." And we not only hear but see with our own eyes the methods followed in the various museums of the many cities we visit. Not only so, but we secure for our Association graceful public recognition by finding that the great private collections throughout the country are freely thrown open for our inspection—a pleasure provided for you now in this district. To curators, this opportunity of seeing almost unknown art treasures by

great masters is a very great privilege, indeed an education. Those meetings and visits, really attain for us the proverbially impossible—enable the youth to obtain, in some measure at least, that ripe experience which in ordinary humdrum circumstances can only come with old age, and almost give to us, the children of the present, the rich, accumulated knowledge of posterity. Were there no such Associations as this, no annual gatherings like ours, no periodic interchange of new ideas, and mutual communication of advance and discovery—did we all merely vegetate in our own small habitat, we should become fossils before our time. There is doubtless much poetical charm, and many virtues, in “keeping the noiseless tenour of our way, far from the madding crowd’s ignoble strife,” but in our position, if we did so, to us might be truly applied the other felicitous phrases in that contemplative poem—we should soon become “moping owls” and “droning beetles.”

No, it is our bounden duty not to flee far from, but to encounter and mentally wrestle with “the madding crowd,” to cordially invite and welcome it to our halls, to which, to do it justice it readily comes—sometimes in this very gallery to the number of 4,000 within an hour or two. Is it possible for Gray’s “madding crowd” to throng such galleries and museums, even in the most indifferent kill time mood, without deriving some benefit from the visit? My experience—and it is not a short one—has entirely convinced me that this is impossible even in the most untoward circumstances. The mere casual stroll through, the half indifferent listless glance, may leave no definite impression on the memories of the larger portion of the crowd, but there always remains a select few who, almost unconsciously to themselves, are improved and soon return for fresh inspiration, and this influenced circle ever goes on widening, in obedience to that gracious law by which the little leaven ultimately leavens the whole lump. And if this is the inevitable result of the aimless stroll, the casual glance, the stand-off mental attitude, what must be the gain when the curator courteously invites attention to the

objects—whether in art or archæology, natural science, or technical models, and gives simple explanations of what appears to interest. I do not mean subtle, æsthetic disquisitions on high art, or profound essays on biological science. These have also enormous value, and in the great national art galleries and museums, to which are attached able specialists, such efforts accomplish the highest and most cultured work. There is no necessary opposition whatever between this high art and science teaching by specialists, and the popular descriptions I have spoken of—the one is at the foot and the other is at the summit of knowledge—but to get to the top of the ladder you must begin to climb the first steps. And the “crowd” which I have never found very “madding” is still at the foot of the ladder, and it is the earliest, perhaps the most important duty of the curator, to kindly help it up the first steps. This is a great, nay a difficult work of his, and I know of nothing so well-fitted to qualify him to successfully accomplish this arduous task as the annual meetings of our Association. There he compares notes, learns new methods, acquires most useful information, shares in the experience of older men, receives much needed encouragement, and gets fresh inspiration.

That museums and art galleries were absolutely required has been clearly demonstrated wherever they have been opened. They, all, Pallas like, as regards popularity, attained full maturity at their very birth, and have fully maintained this condition. So far as their collections are concerned, they continue to grow; but popularity and large attendances were attained at the very outset, although in saying so, I am not to be understood as alleging that these newly opened institutions deserved success, but merely that they attained it. However, they are not the only places or persons of which this can be said. The hour had evidently come, and the museum came with it—came, was seen, and conquered. But it was not always so—was not so a few years before, and I suppose it was Prince Albert's great Exhibition of 1851 which set the fashion of the popularity

of museums and art galleries. Many here may have read the pathetic story of George Cruikshank and his colossal painting, the "Worship of Bacchus." He devoted his whole soul to it, strove as never man strove before to put the highest art he was capable of into its composition, and had for it what he then deemed a higher inspiration than art—but here, probably, was the weakness of the great painting—for art is a most jealous mistress and brooks no rival near her throne, she must be courted for herself alone. It was a picture with a purpose, the great cause of temperance, and a wonderful work of genius besides. This enormous painting finished, he placed it in the then largest room in London, charging a small fee for admittance. There he sat throughout the first day to welcome the vast crowds he counted upon, but they never came, and the smallest of halls would have sufficed to hold the dozen or so who paid, and so the poor artist nearly broke his heart at this absolute neglect of the work of his life. He was partly consoled by the fact that his visitors, if very few, were extremely fit, for they included the very elite of London. That good and gracious Lady, Queen Victoria, her illustrious Minister—the great Sir Robert Peel, the most eloquent of English orators—John Bright, and the most accomplished of English novelists—William Thackeray, who constituted himself the champion of the poor, neglected artist. If Thomas Carlyle and Alfred Tennyson had also come, these half-a-dozen might, without much exaggeration, have mentally and morally outweighed all the millions of London.

In thus claiming that museums and art galleries have surely and not altogether silently, achieved splendid success in educating and refining the masses of the population, I may very naturally be asked to furnish proofs. To my mind these are overwhelmingly convincing, both in a general and a detailed sense. Speaking generally, the fact I have already mentioned of the immediate popularity of art galleries and museums everywhere the moment they were opened, is sufficient proof that the people were eagerly longing for such opportunities. That was a great gain even if

you base this opinion on the very lowest possible ground—the crowds were better in a museum or art gallery than merely aimlessly wandering about the streets, with their not very edifying sights and dangerous temptations. Then, as I have also already said, a fair proportion of these visitors did become interested in some of the many objects they saw, and, having come merely to stare returned regularly back to study. And although a large proportion of the crowd never get far beyond the mere staring attitude, they too are undoubtedly influenced. It is impossible for even the most stolid persons to frequently contemplate the wonders of nature, and the achievements of science and art without, quite unconsciously to themselves, their minds being raised and refined. So in this quite general sense, we are entirely justified in claiming for our institutions success in a great, far-reaching work. But I may be further asked what proof can I give that a minority become more or less serious students. It would be almost a sufficient reply to say, that, as in the general refining influence I have just spoken of, it is in the very nature of things that it must be so—but we can go much further than that, and unhesitatingly declare that we *know* it to be actually so. Everyone interested in museums of science and art, and all curators, can readily furnish the names of numerous persons who, beginning as casual visitors, gradually became ardent, and often accomplished, students. There is abundant absolutely *direct* proof of this great achievement, and there is also much general evidence, if partially indirect, equally convincing.

In the earlier days, museums were apt to be largely collections of not very illuminating curios and monstrosities, and the standard of art in galleries and annual exhibitions was certainly not a high one. But these exhibits, commonplace as most of them were, had in them a mysterious and beneficent power to not only elevate the mind but to instil a craving for higher things. And, so even the “madding crowd” slowly but surely forced up the standard of taste and knowledge,—that divine knowledge which “grows from more to more,” till, “more of reverence in us dwells.”

At the beginning of our Dundee fine art exhibitions, held annually in these galleries, paintings remarkable for a specious showiness readily sold. I recall a manufacturer of pretty foregrounds and gleaming roseate sunsets selling six works in one exhibition, and all at full price. But, fortunately, there were other works of genuine art, and these slowly but surely accomplished their inevitable work, and the sunset practitioner sold fewer every year, until he found no purchasers at all, and sent his wares to newer markets. Since the first of our fine art exhibitions, now thirty-four years ago, the standard of taste in art has been enormously advanced in this city—people will not now tolerate the works which at the beginning they admired and purchased. This marked improvement in taste has been greatly aided by the establishment of permanent art collections here, as in most cities, and by the splendid assistance of the Victoria and Albert Museum, South Kensington, in readily granting loans of large collections of high-class art and art objects at very little cost to the borrowers, and also by grants-in-aid of the purchase of examples of these. Such a loan collection now adorns the walls of this gallery—one of enormous value as an educational agent, for it is an historical illustration of the beginning, rise, and glorious development of that specially British art, water-colour painting. Again, the very considerable and representative collection of sculpture in this building was entirely acquired with the aid of such a grant of fifty per cent. While the general standard of taste in art has been thus raised in this city, one or two societies of professional artists have been developed—there were no professional artists here thirty years ago. And since the establishment of the natural history museum, field clubs and other societies for the study of natural science have been instituted.

It will be observed that my remarks are principally directed to the work accomplished by museums and art galleries of moderate size in the various towns throughout our country. The objects and achievements of the great

national museums and galleries is necessarily of a more elaborate and far-reaching character. Not that they do not also successfully achieve much direct popular work of the same nature as country museums do ; but their main objects are of the highest scientific and artistic nature, for which their great size, large resources, and staff of accomplished specialists naturally fit them. Yet, although natural and obvious circumstances render such profound and elevated tasks impossible to the country museums and art galleries, they have an enormous field to work in—the great population of our cities, the “madding crowds,” if you so choose to call them. And a really mighty work will have been accomplished if the humanising, elevating influence of art and natural science is brought to influence the great body of the people. No invidious distinction need be drawn between these two spheres of labour—if the one is the higher, the other is the larger—and may easily accomplish the greater good.

This theory that the first if not the most important duty of the country museum is a popular one—the educative refinement of the people—obtained the other day a formal recognition as influential as it was unexpected. A series of important meetings of the Empire League Educational Conference were held in the Caxton Hall, London, under the presidency of Lord Tennyson, and were opened with a very able and eloquent address by the Earl of Crewe, who, as President of the Council, is the official head of the Victoria and Albert Museum, South Kensington, and other similar institutions. Among other speakers were the Right hon. Arthur Balfour, Sir Horace Plunkett, and many other men of high ability.

The conference, which lasted for eight days, was, after the opening meeting, divided into sections, each charged with the consideration of some special branch of the work of education. To one section was delegated the subject of “museums and education,” and the president and secretary of your Association were pressed to attend. We, after some little hesitation, for it was personally inconvenient

to both of us, accepted the invitation and took part in the proceedings and debates. The president of our section was Colonel Plunkett, R.E., director of the Royal museum of Ireland, and many ladies and gentlemen engaged, or deeply interested in museums and schools were among the speakers including Dr. F. G. Kenyon, of the British museum, who officially represented that institution. There were also distinguished professors from Great Britain and the Colonies, and ladies of experience in scholastic work. Resolutions, after full discussions, were unanimously passed of a general and special character—approving of a closer union between schools and museums, and suggesting how this alliance may be most effectually carried out. Up till now, pupils of schools have derived benefits from museums by coming in classes or groups to the museum—if possible, at hours free from the distraction of crowds of ordinary visitors, and getting free access to the specimens, with explanations given by the curator, or a specially qualified teacher.

In our Technical museum in Dudhope Park we take the models out of the cases and place them on tables—unlike natural history and art specimens they are not easily injured by handling—where they can be closely studied by the pupils or the young tradesmen who come in this manner. But some museums have, as most of you know, advanced considerably beyond this, and send small cases with glass fronts, of many varieties of museum specimens to the schools in order that genuine object lessons may be given daily to classes. Colonel Plunkett, who has made a special feature of this work in the Royal Irish museum, exhibited a number of most attractive cases of this character, and Mr. Howarth, our secretary, most lucidly and effectively described the system they had been carrying out for some years at Sheffield on a pretty large scale, and told us all about the cases used there and the specimens these contained.

We here in Dundee have done a little of this work, but not so elaborately as in Dublin and Sheffield. In Sheffield the considerable expense involved has been partly defrayed by an educational association. One of the resolutions carried

recommended, in order to carry out this scheme, the establishment of a new department in some of the national museums, or the organisation of a separate institution for this purpose. Certainly, if it is to be carried out all over the country, special financial arrangements must be made, as the expense necessary to work this scheme would in many towns absorb the whole income of the museums. That income is invariably a small one, for, except in very large cities, the portion of the library rate of a penny allowed in England for museums only provides a very limited amount, even when augmented by the halfpenny rate under the Museums and Gymnasiums Act, whilst in Scotland there is no rate at all for museums, and they are either maintained on the crumbs that fall from the scantily furnished library table, or are supported by intermittent subscriptions, never a satisfactory manner of support. That the proposal is a good one in itself, and would yield most valuable results is, I think, beyond all question. Those who have had experience in giving object lessons are painfully aware how extremely difficult it is to do so from a book or even an illustration. With only these accessories it is most difficult to arrest the pupil's attention, still more difficult to impress the lesson on the pupil's mind—from which it will very soon fade, whilst, with the object itself before them pupils become keenly interested, their minds rendered exceedingly sensitive, and the impression made is retained practically for life. I hope, then, that this laudable proposal may be soon realised, but let us not forget that the proposal is not in the least intended to be a substitute for youthful visits to galleries and museums. It is quite impossible to be so, because the great majority of art gallery and museum examples cannot be sent to schools, and also because the most valuable cumulative, impressive effect of a museum or art gallery as a whole would not be realised by the mere contemplation in a school, of small cases of small objects. That valuable asset of all such institutions, "atmosphere" would be absent, and the "impressive greatness" which counts for so much frittered

away. Whilst, then, I warmly applaud the suggestion that the museums should assist in elementary teaching outside its own walls, I feel as strongly as ever that a still more important, because more educational, field lies closer at hand—in the museum and art gallery themselves.

The visitor cultured in science and art does not require personal explanations, indeed, may resent them, but to very large numbers of adults and nearly all young visitors, the examples of all kinds are sealed books which convey no intelligible information without explanations given by the curator or someone else. To my brethren now present these statements are almost ludicrously unnecessary, but a very important service may be rendered by making them in the presence of friends who are probably unaware of this most important feature of our work.

It is a work which I have personally carried on for many years with much pleasure, and I hope, at least, some profit to our visitors. Indeed, without egotism, I may be allowed to say that I have been pleasantly rewarded by observing much new and continued interest awakened in large numbers both old and young, never feeling the considerable labour involved in a task, but always deriving special pleasure from speaking to the young. You, of course, sometimes find uninterested, even unwilling listeners, but those who do listen give you their whole, young, eager minds, and you feel assured that the little knowledge you convey will continue to "grow from more to more." In this way, art galleries and museums become much more than merely beautiful or curious places, for mere holiday resort, and whilst fully attaining these, in themselves, quite desirable aims, are undoubtedly accomplishing a great educational and refining work.

In saying this I am fully conscious that those not officially engaged in such work will probably smile at my enthusiasm, and fancy that I am somewhat overstating my case. Mine, however, is not an uncommon failing, and may be forgiven as leaning to virtue's side, and my impartially minded non-professional hearers will, I feel sure, readily

pardon what they may consider my unrestrained ardour. It is, indeed, a commendable virtue—the merit of a sense of proportion notwithstanding—for any man to magnify his work—the shoemaker who does not believe that there is nothing like leather will probably be a mighty poor shoemaker. And so, unblushingly unrepentant, I believe in and still maintain the high educative nature of this work of ours.

The greatest of all poets, probably also the profoundest of all thinkers, assures us that “all the world’s a stage, and all the men and women merely players . . . who . . . in their time play many parts.” It was only natural that he should take that most felicitous of all illustrations from his own profession—there were no museums in the otherwise “spacious times of great Elizabeth.” But had Shakespeare lived now, I doubt not that he would have written “all the world’s a museum, and all the men and women merely specimens, who, in their time, play many parts,” and, in a wide poetical sense would he have been far wrong? Are not all varieties of museums, art and archæology, technical and natural science, entirely dependent upon the work of men and women? Not in the merely limited sense that they have constructed the buildings and gathered together the contents, but because, except in the last-named division—natural science—the specimens displayed in such infinite variety are entirely the work of the hands of those—“who, in their time, have played many parts.” In the natural science museum, if the specimens were created by a greater than man, their discovery, collection and attribution are the work of man’s hands. Few curators, indeed, have had the courage to put man in his legitimate place as “*Homo sapiens*,” or even as a “*Primate Mammal*” in the scientific illustration of biological sequence. You rarely, if ever, see man stuffed, and not often skeletonised, occupying the first place in a case of the higher apes, where, according to the development theory, he ought to be. Somehow, the most fervent advocate of that theory allows his mind to be influenced by the statement of the old inspired,

or uninspired writer that, after the Creator had made the apes and other beasts of the field after their kind, he made man in his own image, and, breathing into his nostrils the breath of life, man became a living soul. Man's position in, and relation to museums, has been governed by his intellectual nature, acquired however that may have been by creation or development. From the far-off—half-million years off—ages onwards, the higher apes built no houses, made no weapons, carved no sculptures, painted no pictures, wrote no poems, sent down no traditions, and in spite of development remain as barren of intellectual achievement as ever—they still remain "beasts of the field." Then our archæological museums are monuments of man's constructive and artistic achievements for, shall I say, a quarter, or half-a-million years! There this early, far-off art is seen continually developing till, in the technical museum, you find man harnessing the elements, and wresting the forces of nature to be his slaves.

These all show that man has truly made "many inventions"—wonderful, marvellous. And, then, crowning the series we have the art museum, where man, attaining full fruition, displays glowing imagination, shows perfect realisation of beautiful form and harmonious colour, and with this high inspired art, illuminates and glorifies the fair earth of which, as our poet tells us, he is a fit and worthy inhabitant.

"This goodly frame, the earth; this most excellent canopy, the air; this brave o'er-hanging firmament, this majestical roof fretted with golden fire—and *man*—what a piece of work is a man! How noble in reason! how infinite in faculty! in form and moving, how express and admirable! in action, how like an angel! in apprehension, how like a god!"

We feel our thoughts unconsciously expressing themselves in these magnificent words, when in the art museum we contemplate the highest works of this majestic genius, and can only explain it by thinking of that mysterious breath of life working in progressive man throughout

the ages, until it culminated in such an artistic and intellectual giant as Michael Angelo.

He was a wise man who, when Greek had almost been forgotten, and modern languages were still undeveloped and unflexible, described the Latin tongue, in which all the world's history and art and poetry—indeed, all knowledge, were embodied, as "The Humanities." This comprehensive phrase, which credited Latin with being the proud record of all human knowledge and human achievement, has, in that sense, almost fallen into disuse, and may now be more appropriately employed in characterising museums, which are in these days the real repositories that fully illustrate Humanity's marvellous advance and accomplishments.

It is on behalf of these and their illustrative merits that we have met together at this time, and I pray that our deliberations may help to forward an eminently good cause.

The Linnean Bicentenary.

THE Linnean Celebrations in Upsala and Stockholm were the greatest possible success. They were attended throughout by members of the Swedish Royal Family, King Oscar, however, being prevented by illness from joining personally in the festivities. Among the numerous foreign delegates the British representatives were conspicuous both by their numbers and the splendour of their academic robes. Sir Archibald Geikie represented the Royal Society and acted as spokesman for the whole body. Among the others were Mr. W. Carruthers sent by the Linnean Society, Professor Poulton from Oxford University, Dr. Francis Darwin from Cambridge University, Dr. Rainy from the College of Physicians, Edinburgh, Lt.-Colonel Prain the Director of Kew Gardens, Dr. Bather representing the British Museum and the Zoological Society, and the Rev. E. Mörice from the Entomological Society.

The Society of Arts was represented by Professor Sjogren. Mr. Daydon Jackson, compiler of the *Index Kewensis*, and secretary of the Linnean Society, had received a personal invitation.

The proceedings in the Aula of Upsala University, in the Cathedral during the conferring of Doctors' degrees, and at the celebration by the Royal Academy of Science in Stockholm were impressive even to those unable to follow all the speeches ; and the exceedingly beautiful music that came at grateful intervals prevented any feeling of monotony. The most striking ceremony was certainly the promotion of Doctors in the solemn cathedral of Upsala, filled to its utmost with all the members of the University and a distinguished assemblage from all parts of the kingdom. When the venerable Haeckel stood forward to receive the degree of jubilee-doctor, neither the sanctity of the place nor the presence of royalty could prevent an outburst of applause, which was repeated when the distinguished authoress, Selma Lagerlöf and the no less eminent painter, H.R.H. Prince Eugen, were crowned with the garland of honorary doctor. Another remarkable function, such as could be witnessed in no other country, took place at the close of a dinner in the restaurant of Hasselbacken, where all the highest and most distinguished men of the country were gathered together. After dinner, as the long northern day drew to its close, the students of Stockholm, who were welcoming Spring with speech and song on the adjoining heights of the open-air museum of Skansen, marched down and escorted the visitors to their festival. There, around a rostrum, with the garlanded bust of Linnaeus raised on high, bale-fires were flaring, while below to the east and south the lights of Stockholm were reflected in the waters, and to the west the sun still brightened the horizon. After further songs, Haeckel made a stirring speech, dwelling on the debt that the modern world of thought owed to Sweden and to Gustaf Adolf, the hero of the Reformation. Professor Nolen, rector of Leyden University, also spoke, and a speech from the representative of the British Museum

was greeted with storms of applause which culminated in the speaker being tossed in the air by the enthusiastic students. Experiences such as these are not readily forgotten. Nor will one forget the visit to Linné's country seat of Hammarby, where relics of the great naturalist are still preserved, or the royal reception in the hanging garden of the palace at Stockholm. The friendliness of the welcome accorded to the foreign delegates surprised only those unacquainted with the hospitable and courteous nature of the Swedes, but the British representatives were more particularly delighted and surprised when the President of the Academy of Sciences, breaking from Swedish into English, announced the award of the newly founded Linné medal to the veteran Sir Joseph Dalton Hooker. The medal—a charming piece of work—was received for transmission to Sir Joseph by the British Minister, Sir Renne Rodd.

Each delegate was presented, *pro memoria*, with a bronze copy of the medal. Here, too, it may be recorded that among those who received the degree of honorary doctor were Sir Archibald Geikie, Mr. Carruthers, Mr. Francis Darwin, and Mr. Daydon Jackson. The last-mentioned, together with Professor Poulton, also received the order of the Pole-star at the hands of the Prince Regent. Copies of valuable publications relating to Linnaeus were presented to each delegate, and to the institution that he represented.

This celebration of the bicentenary of Linné's birth has been a great celebration, worthy of a great man and a great nation. Sweden to-day does not rank among the great military powers of the world, but she is great in the world of thought, and recent political events have awakened her self-reliance. No longer will she rest "on the memory of former great days." She knows what she is, and she will be what she has been. Linnaeus was the founder of Sweden's greatness in science; his commemoration promises to mark the dawn of an even wider greatness.

F. A. B.

Museum Publications.

Bootle.

Generous help has been afforded to education by the museum authorities. Classes visiting the collections have been given every facility, and many objects have been lent to schools. A pupil of the school of art has gained the silver medal in the national competition by a drawing of a group of macaws, the specimens for which were obtained from the museum cases. How far the drawing of specimens set up in museums is to be encouraged is a question that perhaps demands consideration, but it is one to which we can only allude in this brief review. Six lectures were delivered in the museum (three by the curator), eighteen at the central library and eighteen at the Marsh Lane hall. The Board of Education has lent a collection illustrative of Italian industrial art, and a series of photographs of paintings in the National gallery. In the arrangement of these objects much valuable help has been given by Mr. W. W. Watts and Mr. R. F. Martin.

Sunderland.

The Spring Quarterly Circular for 1907 (vol. III., No. 33) is illustrated by a plate of the bronzed cast of Leighton's "Athlete struggling with a Python," recently placed in the art gallery, and contains a short article on this famous sculpture and its illustrious artist. The museum has been enriched by a collection of about 3,000 insects (mostly American), presented by the Earl of Durham.

A collection of autotypes of the most famous British and Dutch paintings in the National gallery has been lent by the Board of Education; from this source has also been obtained a series of electrotypes of the Hildesheim treasures, wood carvings (various), British pottery and examples of book-bindings. The last mentioned series has been supplemented by a collection by Mr. Herbert Squance and visitors to the museum have the opportunity of seeing

an exhibition of book-bindings of exceptional merit. Mr. Squance's collection also illustrates the history and progress of typography from the beginning of the art.

Rochdale.

During 1906, the permanent collection of the art gallery has received an addition of five oil paintings. The additions to the museum include a series of electrotypes of the Sparth fossils now in the British museum. A successful exhibition (the third of its kind) was given in the spring. In September a portrait exhibition was held which was attended by nearly 24,000 people. The portraits (nearly 400 in number) were those of Rochdale people, or of people who had been intimately connected with the town, and the catalogue issued for the exhibition contained many notes of biographical interest. Another series of "Museum Talks" has been given with complete success. The Field Naturalists' Society again supplied wild flowers during the season, and will do so again during the coming one.

London.

The museum report of the Pharmaceutical Society, London, for 1907, consists of a series of notes on donations made to the museum and herbarium during the years, 1903-6. The subjects dealt with are very various. There are short notes on *Jaborandii*, *Calumba*, *Hibiscus*, *Sabdariffe*, *Mallet Bark* and various other drugs, on copper ore, isinglass and dragon's-blood. Among the subjects treated at greater length are: the identity of the myrrh tree (which Mr. Holmes determines as *Balsamodendron Myrrha*, Nees—not *Commiphora Myrrha*, Engler), West Australian poisonous plants, Scammony root, Indian aconites, Chilian drugs, the commercial history of *strophanthus*, cochineal, anti-opium plant, the benzoin of commerce, the oil grasses of India and Ceylon, and the Japanese sea-weed industry. Under the latter head are treated Japanese iodine and funori, or Japanese sea-weed glue. Much of the report possesses great interest quite apart from its technical value.

Glasgow.

The report for 1906 deals with five museums which have been visited during the period under review by about 1,337,000 people. The art galleries have received bequests which, if less striking than those of the previous year, are of great value and interest. Most prominent among these is Mrs. John Elder's bequest of 20 oil paintings and marble busts. An anonymous donor who gave £600 in 1905 for the purchase of pictures, has given £300 for the purchase of sculpture. The year has also been marked by the receipt of valuable loans. Foremost among these was the series of 92 pictures lent by the corporation of London from the Guildhall gallery. This was followed by the loan of 21 important pictures from Captain Dennistoun of Golfhill. The third annual children's drawing competition was held with very satisfactory results; the adjudicators reporting that the average of the work sent in had steadily risen. In the natural history museum great additions and development are reported. Skeletons of elephant, tapir and leopard (articulated in the museum workshop) have been inserted; the fishes have been re-arranged (many of them re-mounted), and the minerals have undergone thorough revision. The children's museum at Tollcross has been greatly developed. Among the additions are an aviary, and a case illustrating the "history of cock robin." The report contains a brief account of the Bristol meeting of the Museums Association, and a reference to the recently formed Associations in the United States and Sweden.

Dundee.

The growth of the Albert Institute during 1906 has been steady and satisfactory. A series of reproductions of Italian medals and a collection of French iron-work have been exhibited. Here, as in so many instances, the assistance of Mr. W. W. Watts and Mr. R. F. Martin has been invaluable. The natural history museum has received many important additions, and much re-naming and re-labelling has been done in this department. New cases have been introduced,

and much space has been gained by the removal to Dudhope museum of specimens which are appropriately housed there. The permanent art gallery has been enriched by several valuable additions during the year, and continues to grow in popularity. The loan collections exhibited in the Victoria art gallery have proved very attractive and have drawn a large number of visitors. The second exhibition of the Tayport Art Circle was held in December and January (1907), and proved very successful. As usual the galleries were kept open during the New Year and summer holidays, and frequent lectures were given by the curator. That the lectures given by the curator and his assistants on Sunday afternoons and evenings were a success is evidenced by the attendance of 90,770, an average of 1,746 per Sunday. One Sunday, when Mr. Maclauchlan himself was the lecturer, the attendance was nearly 4,000. Marked progress has also been made at the Dudhope park museum. Many additions of great educational value have been made, with the assistance of a grant from the Victoria and Albert museum, London. The archæological and ethnographical departments have been largely increased, one of the most important additions being a collection of Hawaiian implements, collected and presented by Mr. Harry Duncan.

General Notes.

AT HOME.

THE MANCHESTER MUSEUM.—Mr. J. Wilfrid Jackson has been appointed an assistant in the geological department, in the place of Mr. W. J. Hall, resigned.

ECONOMIC BIOLOGY.—A department of economic biology has been established in the University College, Bristol. The staff consists of professors and lecturers of the college with Mr. B. T. P. Barker, M.A., and Mr. H. Bolton, F.R.S.E., F.Z.S. as joint readers in economic biology.

PRESERVATION OF PLACES OF HISTORICAL AND ARCHÆOLOGICAL INTEREST.—Various organisations concerned with

the preservation of places of historical and archæological interest have approached the London county council with the view of retaining Crosby Place as an example of early English architecture, and also as a suitable building for a London civic museum, and the county council have now the matter under consideration. Mr. Thackeray Turner, secretary, Society for the protection of ancient buildings, has furnished the following particulars of Crosby place :— It was in 1466 that John, afterwards Sir John Crosby, citizen and grocer, of London, obtained the lease of a tenement formerly in the possession of a Genoa merchant, on which he proceeded to build the house of which the noble remnant, now the most remarkable mediæval monument in the city (with the exception of the Tower) formed a part. The house, Stow says, was very large and beautiful, and it almost seems to have been the most important dwelling ever erected in the city. The great hall, which still exists, stood back from the street between two wings, forming the sides of a court, which was completed by a wall against the street, in which was the entrance gate. Behind and to the right were extensive ranges of buildings, containing the offices. “ The hall was the main feature of the edifice, and great cost and labour seem to have been bestowed upon it. Its west front exhibits a handsome range of six cusped windows, with a finely wrought projecting oriole or bay window.” Where is now the entrance to Crosby Square was the doorway to the hall, which has, or had, eight windows on the east side. This hall was 54ft. long, 27ft. wide, and 40ft. high, and it is still a magnificent work of mediæval architecture, having one of the most original and romantic timber roofs in the whole country, and a stone vaulted ceiling to the oriole window of exquisite beauty, both of which furnished Pugin with subjects for his “ Specimens.” There are other parts of great interest, but it need only be said that what we still have is the noblest part of a noble mediæval merchant’s house. The site must, as mere building land, be of great value ; indeed, the fear is that it may be thought of more value in the city than all the wealth of beauty and association which stands upon it. But the site of Guildhall, for instance must be worth a still greater sum, and I venture to suggest that Crosby Place is one of the things left in the city which should stand beyond count of money, if there are any such things. The hall would make a magnificent city museum of the type of the Cluny in Paris (or that in Edinburgh), or public hall, if it could yet be bought back, for the citizens. The public have even a technical right to an expression of

opinion, as it was by public subscription that the hall was in part repaired in 1836. In an appeal for this purpose it is hoped "that the efforts of the committee for its restoration may meet with success and that one of the last remaining relics of the ancient domestic architecture of London may not be numbered like many others, victims to the march of innovation, among 'the things that were.'"

BRITISH MUSEUM (NATURAL HISTORY).—The zoological department of the British museum has received as a present from the United States Government a collection of fishes from the Philippine Islands, where the newly established bureau of science is doing excellent work in the field of zoological and botanical science. Among other schemes which the bureau has on hand is the organisation of field parties to investigate the medicinal plants of the islands, and a geological survey to explore the coal and other mineral resources of the Philippines. The fishing industry is also in process of being developed.

LEEDS ART GALLERY.—The spring exhibition at this gallery, which was open for a little over 14 weeks had an attendance of 14,451, including scholars who are admitted free, while the general public who had to pay for admission expended the sum of £156 for obtaining access to an exhibition which presumably is intended to promote a taste for art and beauty amongst the population. This surely ought to be convincing proof of the futility of making a special charge for admission to a gallery that is maintained by the public. The sale of catalogues would probably have realised more than the amount received for admission, if the exhibition had been free, to say nothing of the more widespread influence of its educational benefits. At another exhibition at the same time in a neighbouring Yorkshire city, which only comprised about a score of pictures and was opened for ten weeks, the visitors numbered 70,000, but they were not asked to pay a special fee for entering their own public gallery.

CHANTREY FUND PURCHASES.—At the meeting of the council of the Royal Academy in June, two more small works, a bronze and a landscape, were purchased for the Chantrey collection. The painting by Mr. Mark Fisher of a river-bank with trees and water in shimmering sunlight, "Afternoon," at the gallery of the New English Art Club, was one of the pictures selected by the Chantrey trustees. Unfortunately, it had been sold to another purchaser just before the trustees decided to acquire it, and therefore, unless some

arrangement can be come to, they must lose a good picture, and the New English Art Club its first chance of being represented in the Chantrey collection. The bronze purchased by the trustees is the "Girl and Lizard," by Mr. S. M. Wiens, in the exhibition of the Royal Academy.

LARGE ELEPHANT FOR EDINBURGH.—One of the largest elephants in this country has recently been mounted by Mr. Rowland Ward and placed on the Royal Scottish museum at Edinburgh. It is a male African elephant shot at Lado, north of the great lakes. It stands 11 feet 7 inches in height, from which has to be deducted about three inches for the stand on which it is set ; it is 15 feet 8 inches in length from tusk to tail ; and its greatest breadth is 5 feet 3 inches. It has two splendidly marked tusks, which weigh 194lbs., and it is calculated that the value of the ivory is over £100.

GIFT TO CAMBRIDGE UNIVERSITY MUSEUM.—Shortly before his death the late Professor A. Newton, of Cambridge, completed the great work on birds' eggs begun by the late John Wolley, and based on the collection made by the latter. The first part of the work appeared in 1864, and the last part of the second volume was finished only this year, the entire work making about 1,300 pages. The fine collection of eggs, has now passed into the possession of the University of Cambridge. An idea of its extent may be formed from the fact that the catalogue contains 6,076 separate entries, referring each to from one to more than a dozen eggs, in all perhaps 20,000 specimens. The collection was originally confined to European species, but Professor Newton extended its scope over at least the entire western half of the Palæarctic region, as being a zoological district more naturally defined, and he himself during his travels in northern lands added considerably to the collection.

A MUSEUM JUBILEE.—The authorities of the Victoria and Albert Museum call attention to the fact that this institution has been open to the public for fifty years. On the 20th June, 1857, Queen Victoria and Prince Albert accompanied by the Princess Royal (afterwards the Empress Frederick), the Archduke Maximilian of Austria (afterwards Emperor of Mexico), Prince Frederick William of Prussia (afterwards German Emperor), and a numerous suite attended in the evening the opening of the South Kensington Museum as it was at that time styled. In it there were exhibited several miscellaneous collections of a scientific character mainly acquired from the exhibition of 1851. The whole of the fine art collections which had been exhibited at

Marlborough House since 1852 were also removed to South Kensington, and these were supplemented by valuable loans from Her Majesty Queen Victoria and others. Immediately after the opening of the temporary museum the erection of permanent buildings was commenced, and various portions were completed and opened in successive years. The greater part of the original iron building was taken down in 1868, and re-elected as a branch museum at Bethnal Green. The foundation-stone of the new buildings was laid by Queen Victoria on 17th May, 1899, and by her command the name of the institution was changed to that of the Victoria and Albert Museum.

BEQUEST TO THE ROYAL SCOTTISH MUSEUM.—The late Dr. William B. Thompson Gubbin, of Bristol, formerly of Portobello, who died at the beginning of the present year, has bequeathed to the Royal Scottish museum his extensive and valuable collection of fossils, the formation of which occupied him for thirty years. The collection is composed chiefly of invertebrate remains, and includes from 18,000 to 20,000 specimens, some of which are of great rarity. They are for the most part from well-known British localities, but some of the most important Continental and American fossiliferous strata are also well represented. The value of the collection is greatly enhanced by the fact that the localities from which the specimens were obtained have been carefully recorded. The collection, which is to be arranged stratigraphically, is now being laid out in the Scottish mineral hall, but some considerable time must elapse before it can be made available for the use of the public. The collection is bequeathed by Dr. Gubbin in memory of his wife, whose name it will bear.

ROMAN BURIAL PLACE AT PORTLAND.—Thirteen Roman cinerary urns have been discovered in a quarry at Portland, besides a number of old ornaments and rings. The relics were unearthed under the direction of Mr. Prideaux, the curator of the Dorset County museum. It is thought that the spot was used exclusively as the burial place of children, as no fully developed human remains have been found.

JACOBITE EXHIBITION IN EDINBURGH.—Teaching history by pictures is a method favoured by those who "run" the Outlook Tower, Lawnmarket, Edinburgh. Following close on the "Queen Mary of Scots Exhibition," another has been organised relating to that interesting period of history—the Jacobite rising of 1745. It is here brought again vividly into the view of the student of history by a display

of some 150 to 200 prints of various kinds, mostly portraits of the last of the Royal Stewarts, of men and women who heroically associated themselves with their desperate cause, and of some Hanoverian magnates, notably the Duke of Cumberland, who extinguished their hopes at Culloden. This exhibition of portraits, prints, maps, and historical documents of various kinds has been selected from the valuable Jacobite collection belonging to Mr. W. B. Laikie, one of the chief authorities on that period in the country.

NATIONAL PORTRAIT GALLERY JUBILEE.—In their annual report the trustees of the National portrait gallery draw attention to the fact that the present year is the fiftieth anniversary of the first meeting of the board, which took place on February 9th, 1857. Of the original trustees one still survives—Lord Elcho, now Earl of Wemyss, who retired from the board in 1866. The history of the National portrait gallery during the past fifty years has been one of continuous expansion. At first housed in small apartments in Great George Street, Westminster, the collection on numbering 288 portraits was removed in 1869 to a gallery forming part of the exhibition buildings at South Kensington, where it remained until 1885, when in order to avoid risk of destruction by fire, it was removed temporarily to the Bethnal Green museum, the number of portraits having increased during the sixteen years to 747. The collection remained at Bethnal Green for ten years, during which period the number of portraits increased slowly to 982. In 1895 the collection was transferred to the new gallery erected, through the generosity of the late Mr. William Henry Alexander, in St. Martin's Place, and was re-opened to the public in April, 1896. Since that date and during the past eleven years public interest in the gallery has increased to a remarkable extent. The number of portraits on the register in the collection has increased to 1,460, exclusive of engravings, photographs, and other portraits of a supplementary nature, which bring the total number of portraits actually exhibited to 1,630. The rapid increase of the collection has for some time proved that the present gallery is quite inadequate for the purpose of displaying the contents in an orderly and intelligible arrangement, and the need for extension continues to become more urgent. In the eleven years since the building in St. Martin's Place was opened, 1,661,331 visitors have passed through. The number last year was 152,712, of whom 11,822 attended on Sunday afternoons.

ART GALLERY FOR BURY, LANCs.—Under the will of Mrs. Helen Grundy, of Summerset House, near Bury, Lancs., widow of a solicitor, the Bury corporation come into a bequest of £3,000 for a public art gallery.

DINOSAUR FOR THE BRITISH MUSEUM (NAT. HIST.).—Owing to the courtesy of the authorities of the United States National museum at Washington, a restored model of the skeleton of one of the dinosaurs (*Triceratops prorsus*), described by Professor Marsh, has been set up in the reptile gallery of the British museum (Natural History). As models of the skeletons of both the Iguanodon and the Diplodocus are already mounted in the same gallery, the public now have the opportunity of comparing the bony framework of three of the most distinct types of dinosaurian reptiles.

THE INFLUENCE OF ART GALLERIES.—As exemplifying the changes of public opinion in matters of art, says the *Manchester Courier*, it is worth remembering that in 1880 an exhibition of the works of G. F. Watts was held in the art gallery in Mosley Street, Manchester. A charge of sixpence each was made, and in the eight months during which it was open the sum of thirty pounds was received from entrance money! In order to recompense the Governors for such a disappointing result Mr. Rickards, who had lent the pictures, sent a cheque for three hundred pounds to cover expenses. The visitors who attended the last autumn exhibition numbered more than 120,000 in three months.

POUND FOOLISH.—Mr. Glyn Vivian, of Swansea, has withdrawn the offer which he made to erect an art gallery in the town and present also a nucleus of an art collection, on the one condition that the burgesses undertook to maintain it. To find these funds it was necessary to increase the library rate by a farthing in the pound. The corporation agreed to accept the gift, whereupon 50 burgesses demanded a poll to be taken on the question of increasing the library rate. Mr. Vivian's withdrawal is in consequence of this opposition. The town council unanimously passed a resolution declaring that the opposition represented only an infinitesimal proportion of the burgesses, and begging Mr. Vivian to reconsider his decision.

PICTURES FOR THE NATIONAL GALLERY.—Mr. Holman Hunt's picture "The Ship" has been offered to and accepted by the National gallery. This is a result upon which thanks are due to the representative committee formed

some months ago, under the chairmanship of the Earl of Carlisle, with the object of securing for the nation a characteristic work by the veteran artist, who was the first of the Pre-Raphaelites and remains the last of the Brotherhood. The original intention, it will be remembered, was to raise some £8,000 for the purchase of the "Lady of Shalott," and the large part of that sum having been secured was offered to the Chantrey trustees with a view to enabling them to acquire the picture. The Chantrey trustees, however, were unable to entertain the proposal, and the scheme fell through. "The Ship," now so happily secured for the National gallery, is a more characteristic and representative, though a lesser, work of the painter who reached his eightieth birthday on April 2nd. By the will of the late Miss Cohen, of Great Stanhope Street, the National gallery has come into possession of 26 or 27 old Italian pictures, which have been hung on screens in the central octagon. The collection was formed by Miss Cohen's relative, the late Mr. John Samuel, under whose name it is henceforth to be known.

WATTS ART GALLERY.—To the Watts picture gallery at Compton, Surrey, there has recently been added a number of the artist's earlier works. The studies in oils include a hawking scene, one of the figures in which is a portrait of the artist himself. Another work of interest is a painting of the cottage in Derbyshire in which Sir Francis Chantrey, the famous sculptor was born. "The Triumph of St. George" is a study of the fresco in the upper waiting hall at Westminster Palace. There are three pictures of Eve in the Garden of Eden, smaller studies for the well-known pictures which are now in the Tate gallery. Amongst the early oil paintings added is a portrait of Miss Marietta Lochart and a portrait of Miss Spring Rice. Many of the works are of a period prior to the artist's visit to Italy, and it is hoped that the exact date of each work will be announced later. At the gallery practically every period of Watts' work is now represented. It is probable that the new sculpture gallery will be opened shortly. It contains amongst other works the original gesso of the famous "Physical Energy" group, and the Tennyson statue.

THAMES-SIDE TREASURE TROVE.—Claims to the urnful of Roman coins found on the site of an old Roman camp on St. George's Hill, Brooklands, were decided by the Weybridge coroner when the jury declared all the coins recovered to be treasure trove, and they were handed over to

the Treasury. A navvy broke an urn containing them with a pick-axe whilst digging on the motor track. The navvies scrambled for the coins, and the police have only succeeded in recovering sixty-eight of them since, from public-houses or pawnshops. All the coins are in an excellent state of preservation, and bear the impression of Diocletian, Constantius, and Maximus, Roman emperors who lived about A.D. 270-300.

THE GUILDHALL LIBRARY, LONDON.—The Guildhall library committee has received from Mrs. Victor Maslin, whose husband was a godson of the Duchess of Kent, several objects of interest associated with the Duchess of Kent and Queen Victoria for presentation to the library and museum. The gifts consist of an inkstand in dark blue china, a china taperholder, a card-case formerly belonging to the Duchess of Kent, a bust of the Duchess of Kent, being a replica in miniature of the one at Frogmore, a photograph of the Duchess of Kent (framed) and signed by her. a bust in miniature of Queen Victoria, a book in MS. written by Edward, son of Sir John Courcy, in 1835, explanatory of the English Constitution, for the Duchess of Kent, who in the flyleaf expresses her indebtedness, a lock of Queen Victoria's hair in an elegant box presented to Mr. Stephen Maslin in 1829, a drinking glass used by Her Majesty, and a blue and white Spode jug, with initials V.R. and A.H. The last two letters stand for Amelia Harrison, the attendant to the Queen, she being the person who awoke her to announce her accession to the throne. There is also a volume of Macaulay's Essays, with the signatures on the flyleaf of the Queen and the Duchess of Kent. These relics will be placed in a special case for public exhibition at the Guildhall.

HULL ART GALLERY.—The erection of the new art gallery at Hull is to be commenced almost immediately, and for the permanent collection that is to be contained in it many pictures have lately been acquired by the purchasing committee. Among them Mr. David Murray's river landscape "The Don abune Balgownie," that was shown not long ago at the academy, Mr. Alfred East's "Evening on the Cotswolds," exhibited last year at Suffolk Street, the "Interior of Milan Cathedral," by Sir Wyke Bayliss, "Memories," by Mr. Walter Langley, and "The Pier," by Mr. Arnesby Brown. Three pictures now at the Royal Academy have also been acquired by Hull. One is in the water colour room, "The Wild Highlands" by Sir Edward

Poynter, and the others are Mr. J. Walter West's "Fire-light and Pearl," and Mr. Hodgkin Dixon's "Street Scene, Funchal, Madeira." A large fund still remains in the hands of the committee for the purchase of works from the Hull autumn exhibition.

USEFUL PREMONITION.—An interesting discovery has been made on the new Carnegie library and museum site at Worthing, where some workmen, employed in digging a trench for the foundations, unearthed a Roman urn containing human bones, also a small vase and pieces of pottery. The town council intend to place them in the museum when it is completed.

JAPANESE EDUCATIONAL EXHIBITION.—The interest in Japanese education which Baron Kikuchi has aroused, by a recently-completed series of lectures for the university of London, will find further stimulus in an attractive exhibition illustrative of the same subject which was opened in May at the Victoria and Albert Museum, London. Examples are chiefly given by means of drawings and paintings, showing the scholars at work in their class-rooms, and these are arranged in a progressive manner, beginning in the kindergarten and proceeding through the ordinary and higher elementary, middle, normal, and higher normal schools to the technical colleges and the Imperial University of Tokio. There are, in addition, several classes for needle and manual work. As a whole, the display not only shows the importance attached in the Japanese schools to technical instruction, but of the ample provision made for the transition from the higher schools to the universities. Colleges for engineering, agriculture, commerce, medicine, law, literature, and the army and navy, are all ready to receive pupils who have attained the age of seventeen. Two features of the more rudimentary stages of the child's development are noticable in the excellent collection of pictures and specimens. One is the provision for healthy exercise, and the other the struggle for the mastery of the English language. With the latter they form an early acquaintance, and many admirably written pages of dictation showed how well the children had applied themselves to the task.

BRITISH MUSEUM (NAT. HIST.).—Another specimen of the okapi has been added to the exhibited series of animals in the British museum (Nat. Hist.), making three in all now to be seen in that institution. This latest acquisition is the specimen obtained by the Alexander-Gosling expedition on the river Welle in the northernmost corner of the

Congo Free State, some hundreds of miles from the nearest place where examples of the okapi have hitherto been found. The Welle species, as seen in the well-mounted species at South Kensington, is a good deal darker than the specimens from the Ituri and Semliki forests, and may prove to be a distinct local race of the animal. The Alexander Gosling specimen has a further interest attached to it in being the only one of the okapi captured by a white man first hand, all the other skins in Europe having been obtained through natives. Some leaves of the plant on which the okapi feeds, collected by Mr. R. B. Woosnam during his recent journey from Ruwenzori to the Congo have also been placed on view in the museum.

RUSKIN SKETCHES FOR BIRMINGHAM ART GALLERY.—A valuable gift of pictures to the permanent collection of the Birmingham art gallery was announced at the meeting of the committee last month. The pictures, which have been presented by an anonymous donor, consist of eight water-colour and sepia drawings and pencil sketches by Ruskin. One of the chief works is a coast scene near Dunbar, and the largest of the sepia drawings is illustrative of an Italian landscape.

A STORE OF QUERNS.—The late Dr. H. B. Hewetson, of Leeds, whilst living at Easington during the summer months collected a fine series of ancient querns or hand-mills, numbering 11 examples, some being of Roman date. These were obtained at Outnewton, Dimlington, Sheffling, Easington, and other places in the vicinity of Hull, and one exceptionally interesting example was from the Roman kitchen-midden exposed by the tide on the Humber side of Kilnsea. These were carefully preserved in the garden and have now been presented to the Municipal museum at Hull, as well as a number of cannon balls, a fine mammoth tooth, &c., all from the Spurn neighbourhood.

PROGRESS OF THE VICTORIA AND ALBERT MUSEUM, LONDON.—Although most of the scaffolding surrounding the new Victoria and Albert Museum, at South Kensington, has been removed, and the building itself has outwardly the appearance of approaching completion, it will probably be at least another two years before the interior is ready to be opened to the public, as the fittings for the new galleries must be provided before the collections can be arranged according to the plans approved by the art committee of the museum. There is no intention of departing from the original scheme on which the South Kensington

Museum was established, that being the collecting of objects of art, in the hope of improving industrial art in this country. The purposes of the Victoria and Albert Museum will continue to be the acquisition of objects which are desirable from the point of view of art alone, specimens of which the interest is chiefly archæological, or historical, being left to the British museum.

OBITUARY—PROF. ALFRED NEWTON.—We regret to state that Professor Alfred Newton, M.A., F.R.S., professor of zoology and comparative anatomy, died on June 7th. Born in 1829, he was educated privately and at Magdalene College, Cambridge. He became a travelling fellow of the college in 1854, between which time and 1863 he visited Lapland, Iceland, West India Islands, and North America. In 1877 he was re-elected to a fellowship at the college, which he held till his death, residing in a set of rooms, formerly part of the Master's lodge, just outside the first court of the college. He took an active part in university affairs, and beyond its limits was an energetic supporter of measures for preventing the destruction of our rarer birds, being for several years chairman of the Close-time committee, appointed by the British Association, during which time three Wild Birds Protection Acts were passed. He was also active in promoting the study of expiring faunas in other parts of the world, such as the Sandwich and Mascarene Islands. He was for many years chairman of the committee for observing the Migration of Birds in Britain, which has been the means of collecting a mass of very valuable information. Of studious habits, and debarred from active exercise by a slight lameness, which increased towards the end of his life, he got through a large amount of scientific and literary work, though his scrupulous exactness made him not less critical of his own productions than of other peoples'. Besides contributions of articles to the books of others, editing the second series of the "Ibis" and the "Zoological Record," together with the fourth edition of Yarrell's British Birds, he published as separate works in 1862 the zoology of Ancient Europe, in 1864 to 1902 the Ootheca Wolleyana, and finally the Dictionary of Birds (1893-6), a work of the highest value. He was a member of various foreign and other societies, presided over the zoological section of the British Association in 1888, and has held office in the zoological and the Linnean societies, receiving from the latter its gold medal. He took an active part in the meeting of the Museums Association at

Cambridge in 1901, and read a paper on "Some Old Museums. Elected F.R.S. in 1870, he was awarded a Royal Medal in 1900.

ABROAD.

AUSTRALIAN EXHIBITION.—The largest exhibition ever held in Australasia has just come to a close in Christchurch, New Zealand, and as usual the several local museums have had objects of all kinds tendered to them, only a few of which, again as usual, the respective directors could receive as suitable. The choice Maori carvings, implements and utensils of various kinds will find a permanent home in the Colonial museum, Wellington. The British Government has presented to the Canterbury museum, Christchurch, the collection of British military and naval medals, life saving medals, coronation medals and photographs of British colonial seals. The Canterbury museum, New Zealand, has also received specimens of native birds including albatrosses, penguins, gulls, etc., from the Southern Islands shown in the exhibition aviaries.

TRAWLING IN NEW ZEALAND.—The New Zealand government is about to undertake extensive trawling of an experimental nature. Mr. L. F. Ayson, chief inspector of fisheries, will be in charge, and Mr. Edgar R. Waite, F.L.S., curator of the Canterbury museum, Christchurch, has been appointed zoologist to the expedition. Collections will be made of all marine products which will be investigated, as far as possible, by New Zealand naturalists, and the material obtained will be the property of the Canterbury museum. The committee for biological and hydrographical study of the New Zealand coast, appointed by the Australasian Association for the Advancement of Science, will provide some of the equipment for use in the deeper waters. The "Nora Nevin" a new steam trawler, just from the stocks at Grimsby, England, built to the order of the Napier (N. Z.) Fish Supply Company has been chartered by the New Zealand government, and it is anticipated that operations will extend over a period of three months.

PICTURES AND STATUARY FOR ITALIAN GALLERIES.—The Italian government has purchased for the sum of 450,000 francs, the Greek statue known as "The Maiden of Porto d'Anzio," which belongs to the beginning of the Hellenic epoch, and was discovered nearly 30 years ago at Anzio. It will probably be placed in the Roman museum of antiquities.

known as the Museo delle Terme. Other works of importance recently acquired by the same government are, a male portrait by Romanino, which goes to the Academia delle Belle Arti, at Venice ; a " St. Jerome in Penitence " of the Milanese School, will be placed in the Brera gallery of Milan, and a half-length, " St. Mary Magdalene," by Piero di Cosimo, in a perfect state of preservation, will add to the attractions of the rapidly growing Galleria Nazionale of Rome.

PORTRAIT EXHIBITION, PARIS.—In the " Exposition de portraits peints et dessinés du XIII. au XVII. siècle " open at the Bibliotheque Nationale of Paris, the culminating point of interest is the unrivalled series of crayon portraits of the sixteenth century exhibited by the Bibliotheque itself, and comprising the best-known and the best authenticated portraits by François Clouet.

PICTURES FOR THE LOUVRE, PARIS.—The museum of the Louvre has had the good fortune to purchase from the Fragonard and Chardin Exhibition, held at the Georges Petit Gallery, in Paris, two portraits by Chardin of first-rate importance, and moreover, of great beauty. These are the likenesses *en pendant* of two children of the banker and jeweller Godefroy, a collector also and dilettante, who was among the patrons of Chardin in his beginnings. The elder child is preparing to play some violin music placed before him on a music-desk, and this picture will probably become known as " Le Jeune Homme au Violon." The younger child, neglectful of his school books, gives himself up wholly to the spinning of a top, and this, like a similar Chardin at present well-known, will probably be called " L'Enfant au Toton."

SWEDISH MUSEUMS ASSOCIATION.—Under the title, Svenska Museimänna Föreningen, the Swedish Museums Association was formally constituted on June 10th. at a meeting on Skansen in Stockholm, with Professor O. Montelius in the chair. Museums from all parts of the country were represented, but none of those present were from museums of natural history. The rules drawn up by the provisional committee were adopted, and in accordance with them the members of the Society will be museum men, and not museums as with us. Between 40 and 50 members are already enrolled. The committee was instructed to complete the list of all Swedish museums, and it was decided that any contribution from the State that might be obtained should be devoted to the cataloguing and arrangement of

collections already existing. The secretary of the association is Dr. G. Upmark. The next meeting will be held in Stockholm in the summer of 1908, and it is to be hoped that the naturalists will not hold aloof on that occasion. We understand that their coöperation is earnestly desired.

THE NORTHERN MUSEUM, STOCKHOLM.—On Saturday, June 8th, the new building was opened to the public by H.R.H. the Crown Prince, in the presence of an assemblage far too large for the great hall of the building, into which those invited then passed. Speeches were delivered by the president of the committee, Professor I. G. Clason and by Dr. B. Salin. This fine building sets the crown to the work of the enthusiastic collector, and true patriot, the late Arthur Hazelius. In addition to establishing the now well-known open-air museum of Skansen, he amassed large collections illustrating all aspects of northern, and especially Swedish, national life and history. For many years these were housed in such rooms as he could rent in various buildings. Now they are gathered together and suitably arranged in this fine museum.

ETHNOGRAPHICAL MUSEUM, STOCKHOLM.—In this department of the Swedish State Museum, the new director, Baron Erland Nordenskjöld, has placed on exhibition a large and interesting collection of objects obtained by Swedish missionaries in various parts of the world. Many of these collections, obtained through funds contributed by the Swedish Society for Anthropology and Geography and by various private donors, have now been formally handed over to the Academy of Science. It is also announced that "In memoriam, Professor Hjalmar Stolpe," Dr. Hans Meyer of Berlin has presented this museum with his Benin collection roughly valued at some £2,000. Baron Nordenskjöld is anxious to make his museum of more service to school children, and desires that their visits to it should be correlated with the instruction in school. The present building, however, is unsuitable, since, for want of space the objects are so closely massed that attention cannot easily be confined to the few that are of importance; nor is it possible for a large number of visitors to congregate around any particular object that is being demonstrated. Baron Nordenskjöld would like to instal a special children's collection of the more important objects, provided with complete labels. The Academy, however, has no room for the purpose, and he therefore makes the suggestion that, pending the erection of a larger museum, such a children's

exhibit should be placed in a room of one of the larger schools. The adoption of his proposals should do much to vivify the teaching in geography and the history of religion, and would give children a better appreciation of the slow steps by which modern civilisation has been attained.

THE PALÆONTOLOGICAL DEPARTMENT OF THE STATE MUSEUM, STOCKHOLM.—In former days the exhibition rooms of this department offered no great attraction to the public, since greater efforts were devoted to accumulating a valuable and comprehensive series of Swedish fossils for the use of students. Now, however, Prof. G. Holm is doing much to improve the exhibition rooms. He is drawing up general labels in simple language and illustrating the fossils by means of diagrams and restorations. These latter, are generally reproduced by photography from illustrations in authoritative books, enlarged, and effectively retouched by a skilful artist. This attempt to interest the public is not altogether altruistic, for funds are required for the new museum building, and it is not easy to make the ordinary legislator understand the importance of abstruse palæontological research. Professor Holm's experiments in photography have led him to adopt this method almost entirely for the representation of specimens in his scientific memoirs. He has a vertical camera so that objects of any size or shape can easily be placed in position; the illumination is obtained entirely from electric light, powerful Nernst lamps being employed. Either reflected or transmitted light can be used. The ordinary methods, whereby a fossil is clumsily fixed on a board and photographed by a camera on a stand under the ever varying conditions of daylight, seem very antiquated in comparison with the devices employed by Professor Holm.

DISINTERRED WEALTH OF THE INCAS.—One of the largest and most valuable collections of prehistoric gold and silver ornaments so far recovered from the soil of South America is now in New York. These magnificent treasures are, says the *New York Times*, the result of the Museum of Natural History's extended explorations among the ancient burial places of the race of the Incas, whose empire or confederacy in the fifteenth and sixteenth centuries occupied the table lands of Peru, Bolivia, and Ecuador. Charles Mead, curator of the Peruvian department, has recently re-arranged and installed these relics, showing strikingly the handicraft and the high degree of civilization possessed by this, the most remarkable aboriginal race

of the new world. They are displayed in a showcase at the entrance of the Peruvian hall. The relics were wrested mainly from ancient burial sites, and their presence is attributed to the elaborate worship of the dead, which prescribed that offerings should be placed in the graves of nearly all the objects associated with the deceased in daily life, such as choice personal ornaments of gold and silver, rich garments, pottery, etc. In some instances, however, these were deposited for sacrificial and votive purposes during religious ceremonies.

THEFT OF VALUABLE MS.—Through the intervention of the Austrian Government, a professor belonging to a wealthy Viennese family, obtained the Italian Government's permission to visit all the museums and libraries of the kingdom for the purpose of studying ancient manuscripts. He also had special permits for the Vatican libraries, being a member of the Austrian Institute of Historical Studies. While the professor was in the archiepiscopal library at Udine, a precious MS. of the fourteenth century, with illuminated miniatures, disappeared. He protested his innocence, but the MS. was seized at the post-office, where the professor had taken it for despatch to a Viennese photographer. He was arrested, and while in prison twice attempted to commit suicide.

EXHIBITION OF ANCIENT UMBRIAN ART.—The finest of the old palaces of Perugia, the Palazzo dei Priori, is the scene of a wonderful exhibition of early Umbrian art, which is to remain on view till the end of September next.

ART TREASURES OF THE VATICAN.—Under the auspices of the Pope himself, the Pinacotheca of the Vatican is to be removed to other galleries in the Vatican, better suited than the present somewhat remote quarters to display the relatively few yet wonderful treasures so well known to all visitors to Rome. It appears that not only is his Holiness warmly interested in the reorganisation of this world-famous gallery, but that he will make sacrifice, in order to enrich the ensemble, of all really important works that are at present hung in the State and private apartments of the Papal palace. There will thus be added to the Pinacotheca many fine things known at present only to students, such as "St. George Slaying the Dragon," by Paris Bordone, a "Portrait of a young Prince," by Bernardino Conti, altarpieces by the scarce Antoniazio Romano, and others. The library of the Vatican contains in the *Sala delle Pitture*, a vast number of small panels, illustrating mainly the Floren-

tine and Sienese painting of the Trecento, and some of these are of paramount importance in showing the inter-connection in the later fourteenth century of the two great phases of Tuscan art. It is to be hoped that these panels will be removed from their present retreat and arranged in a special gallery of their own. It seems certain that the picture gallery of the Lateran museum will be transferred *en bloc* to the Vatican, the modern pictures only remaining where they are. Thus will the new Papal picture gallery of the Vatican be enriched with important altarpieces by Fra Filippo Lippi, Benozzo Gozzoli, Marco Palmezzano, and other painters of the Quattrocento and early Cinquecento, and especially with a magnificent "Madonna and Child" by Carlo Crivelli.

MUSEUMS ASSOCIATION.

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Hon. Secretary and Editor :

E. HOWARTH, Museum and Art Gallery, Sheffield.

Hon. Assistant Secretary :

E. E. LOWE, Museum and Art Gallery, Plymouth.

The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of 10s. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

THE MUSEUMS JOURNAL.

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Museums Association.

THE DUNDÉE CONFERENCE, 1907.

A SENTENCE in the luminous and comprehensive presidential address delivered by Mr. John Mac-
lauchlan sums up very aptly the broad advantages of these conferences. "If we meet together once a year for a week or so, and listen to able papers read by men who have specially studied difficult subjects dealing with branches of our enormously varied work, and engage in frank but kindly discussion on the views expressed, are we not attaining the proverbial benefits eulogised by the 'wise man'—'iron sharpeneth iron, so a man changeth the face of his friend,' and securing that 'safety' which he assures us is to be found 'in the multitude of counsellors.' And we not only hear but see with our own eyes the methods followed in the various museums of the many cities we visit. Not only so, but we secure for our association graceful public recognition by finding that the great private collections throughout the country are freely thrown open for our inspection."

Dundee realised these advantages and privileges to the full extent, for the gathering was a representative one, the papers read were of a thoroughly practical character, while the museums and collections, both private and public, available for the inspection of members, comprised objects of great beauty and high educational value.

Delegates attended from all parts of the kingdom, the museums represented comprising Bolton, Bootle, Brighton, Bristol, Burnley, Carlisle, Dublin, Exeter, Edinburgh,

Glasgow, Huddersfield, Hull, Ipswich, Keighley, Maidstone, Manchester, Newcastle-on-Tyne, Norwich, Paisley, Perth, St. Helens, Sheffield, Stockport, Stoke-on-Trent, Sunderland, Warrington, Worcester, York, and the Victoria and Albert Museum, London. In addition to the curators of these museums, there were also present fifteen members of city councils or museum committees. Mr. H. F. Klingenberg represented the Thronhjelm Museum, Norway. Mr. H. L. Brækstad, Norwegian consul attended the meetings, and also Prof. Nozawa, Japan. The active interest taken by the people of Dundee in scientific progress and higher education was shown by more than forty associates joining the association, many of them taking an active part in the proceedings. The attendance altogether was quite up to the average, and all those present participated in the work of the conference with regularity and keen attention.

The papers this year were not limited to any special department of museum work, as they had been at some previous conferences, and they consequently ranged over a wider field, which probably in some measure increased their interest to a larger circle, though they all had a direct practical relation to the aims of the association.

The presidential address by Mr. John Maclauchlan was characterised by a warm enthusiasm for museums expressed in language of rare literary grace, with all the logical force that specially distinguishes the Scottish mind, though in this case the severity of the reasoning was tempered by a discerning wit, an appreciation of humour, and a convincing zeal that made the address pleasant as well as instructive. After referring to the benefits derivable from the association, which is now in its eighteenth year, Mr. Maclauchlan dealt specially with museums in relation to the masses of the people, and showed how they were steadily influenced by museums and art galleries, often unconsciously, though always effectively, in a growing discernment of the really beautiful in nature and art. "That museums and art galleries were absolutely required has been clearly demonstrated wherever they have been

opened. They all, as regards popularity, attained full maturity at their very birth, and having fully maintained this condition. So far as their collections are concerned, they continued to grow, but popularity and large attendances were attained at the very outset." He urged the importance of explanations of what appears to interest the public, and cited the large attendances at lectures in the Dundee Art Gallery, where, on one occasion, more than 4,000 people were present. He laid special stress on the improvement of taste that had been brought about by art galleries enabling the people at all times to familiarise themselves with what is good and true in art, incidentally hinting that the utmost care should be taken to keep out everything else from a public art gallery. As an instance of the recognition of the important duty of the country museum being a popular one concerned with the educative refinement of the people, Mr. Maclauchlan referred to the Federal Conference on Education in London in May and June last. "The conference, which lasted for eight days, was, after the opening meeting, divided into sections, each charged with the consideration of some special branch of the work of education." To one section was delegated the subject of Museums and Education, and the president and secretary of the Museums Association attended it. The president of the section was Colonel Plunkett, R.E., director of the Museum of Science and Art, Dublin, and the speakers included Dr. F. G. Kenyon, of the British Museum, professors from universities in Great Britain and the Colonies, and many ladies and gentlemen engaged in scholastic work throughout Greater Britain. Resolutions were unanimously passed approving of a closer union between schools and museums.

Mr. Maclauchlan touched on the present direct relation of museums in this country to education, instancing the circulating school museums at Dublin and Sheffield, and advocating the provision of the necessary funds to carry on such work with all the museums of the country. "Museums are in these days the real repositories that fully

illustrate humanity's marvellous advance and accomplishments."

Two of the papers dealt with the general question of museums. The first of these, entitled "How to promote the use of museums by an Institute of Museums," by Huntly Carter, aimed at bringing within the ken of everybody all things in the universe that excited the attention of the human mind. The object of the paper was to show how the use of museums could be promoted by the establishment of a central institute, which would serve as a guide and index to all local museums. The objects of a museum collection were primarily and avowedly educational. They sought to increase knowledge by affording scientists facilities for the investigation of cosmic and human phenomena, and to diffuse it by making the facts of science and art clear, interesting, and accessible to the public. Museums could only be said to fulfil their functions in so far as they brought their collections not only before the expert and advanced student, but the whole community, so that their educational aspects might be seen and utilised by all. In order to attract the people the form of museum instruction must be understood and appreciated by them. Museums represented that real knowledge of things as they were which was obtained by the eye and the hand, and required a scientific frame of mind for its comprehension. It was a commonplace that the people did not possess that frame of mind. Everywhere there was wanting the true scientific spirit of observation. To promote the use of museums two things seemed necessary—an arrangement of their materials whereby they might be seen, studied, and remembered with some unity of effect; and the formation of a scientific frame of public mind. The paper was designed to show how, in the opinion of the writer, these two objects could be attained.

Not quite so diverse in its aim and more restricted in its application was the suggestive paper by Prof. Patrick Geddes on "Civic Museums." The civic museum, he said, did not mean a general museum supported by the city, or

rather struggling and half-starved, but a special museum representative of the cities, and particularly of the city where it happened to be. A curator, it might be said, had no room and no money for such a thing. Both propositions might be only too true, and therefore his suggestion that museums should illustrate cities in general and their own one in particular might seem to be impracticable. Referring to his report upon the possibilities of the Carnegie Dunfermline Trust, in which he expounded particularly on museums and pleaded the cause of museums of all kinds, he said that, although he had been highly encouraged by the response to that report, he was bound to note that it was in the direction of open-air and external improvements that the movement had gone, rather than in the direction of the great museums for which he specially pleaded. Rightly or wrongly, there did exist the idea that a museum, although a very fine place, was mainly concerned with the treasures of the past, regarding which the citizens did not much care; that it was rather a treasure-house for the withered flowers of the past than a seed store for the future. In the Dundee galleries one of the most interesting, characteristic, and significant of the exhibits was the collection of Old Dundee. The particular feature he pleaded for to accompany the "Old Dundee" and other old collections was an outline of the present city—the historical and archæological, the present, and the immediate, practicable, and possible future—the literature of antiquity, of the present day, and of Utopia. Let them have at least one small room in their museums where all citizens might find something that interested them and gave them hope for the future of their city. He put it to them whether the time had not come when they could give a little space, not only to the historical and antiquarian aspect of their cities, but also to the expression of its present, a social survey, and to constructive suggestions for its practicable improvement in its immediate future.

Mr. W. W. Watts, F.S.A., of the Victoria and Albert Museum, London, who has done such splendid work

throughout the country in connection with the circulation of collections of industrial art from the Board of Education to provincial museums, read a very appropriate and extremely useful paper on "Some uses of a Museum of Industrial Art." He began by observing that the claims of museums of industrial art had, with some few exceptions, been recognised only in recent years. At the present moment, while the brighter attractions of a gallery of pictures had appealed to many provincial towns, there were many who saw the necessity for establishing a museum of decorative art. To begin with, a museum of industrial art should in its formation and development have some definite object in view, without which it could hope for nothing except to become the dumping ground of well-intentioned people who wished to get rid of superfluous oddities. The object in view would naturally vary with the nature, history, and industry of the various towns. One aim should be common to all—the museum should illustrate the town or locality, its history, its trade, its manufactures; should be the repository of everything of an artistic nature connected with the events political, commercial, or otherwise, through which it had passed—looking at them all, of course, from the artistic point of view. He might venture to suggest that in Dundee a collection of printed fabrics of all countries would form an addition to the museum of considerable interest and usefulness to those engaged in jute printing. But they would say, "What is the use of an industrial art museum in a town possessing no great history and working in no artistic crafts?" On general lines it would help visitors to use their eyes and develop their æsthetic taste. If they awakened in some minds a proper appreciation of some point connected with a work of art they had made progress. His contention was this—They rightly considered that a museum of industrial art should aim at placing before the public works—whether a magnificent piece of jewellery or an iron door handle—which were intended to be considered primarily from their artistic merit, and which were meant to teach the visitor the history

of some particular branch of art and what to admire and value from the standpoint of beauty and utility. They remembered, however, that a large percentage of visitors had either no artistic perception, or at the best an undeveloped sense of appreciation of art. They had the power, and should use it to the full, of appealing to the historic faculty, which undoubtedly existed in most people, so that their museums were not simply relics of a bygone century, but powerful though silent witnesses to the life, the politics, the crises, and the social and domestic customs of the times in which they were produced. He ventured to think they had not sufficiently studied the use of a museum of industrial art from the historic side, and he was confident that in that way they could attract the attention of visitors to their museums to a degree which would far exceed their greatest expectations, and their collections would have a new and living interest, for they would bring to the minds of those who saw them pictures of the past no longer hazy and nebulous, but real and clearly defined.

The other papers submitted to the conference related more particularly to departmental work. Mr. A. J. Caddie dealt with "The method of collecting and exhibiting English Pottery and Porcelain," illustrating his remarks by lantern slides, showing specimens of the potter's art at various stages in its evolution. He said the collection of specimens of the ceramic art for public museums had of late years developed very considerably, particularly so since the Board of Education had sanctioned a grant in aid, which reached a maximum of 50 per cent. on the purchase price. That such collections systematically organised were of educational value could not be disputed, but it was necessary to exercise great care in the selection of suitable objects having a direct bearing upon, and illustrating the development of the public art, and the avoidance of faked and meaningless objects. It was his purpose to offer a few suggestions as to what points should be observed in acquiring specimens of Staffordshire earthenware that would fully illustrate the most important steps in the evolution of that great industry.

Mr. F. G. Pearcey submitted two papers to show the methods adopted in the Bristol museum for showing spirit specimens in a safe manner on walls outside the cases, and also illustrated by specimens natural grouping in spirits. An interesting paper was read from Dr. Meyer in explanation of the proper position in which to display the wings and "tail" of the peacock.

In his discourse on "Museums of elementary and higher grade Schools," Mr. H. Bolton, F.R.S.E., freely criticised the heterogeneous character of collections in schools generally. He suggested that the school museum should be confined within narrower limits, and have a more definite aim. If the material comprising it was of any value in the school curriculum, it would have a much greater value were object lessons and museum contents arranged on well-defined lines to a common end. He believed that all objects of an industrial character, such as the specimens illustrating the various stages of manufacture of common articles of everyday use, ought to be separated from all others and placed in one cabinet, whilst objects of natural history should be kept within rigorous bounds, and limited to those examples well within the cognisance of the scholars. All collections, large or small, ought to be maintained in the very best possible order, and children should be taught that every specimen had an educative value, whether taken singly or in relation to others. If that were done it would follow that the impressions received from the school museum would lead to a fuller realisation of the utility and importance of the public institution, and to a greater use of the latter in adult years. School museums might with advantage be under the eye of the local museum curator, not with regard to arrangement, but with regard to growth, maintenance in good order, and usefulness. In these respects he could often render efficient service by a timely word of advice, by the gift of a suitable duplicate, and by identifying specimens. The facts with which they had to deal were these. At present school museums existed: they perpetuated old evils; and they were non-efficient, and likely to be productive of harm.

Mr. E. Howarth followed with a description of "The School museum system at Sheffield," where they have arranged series of cabinets, portfolios, lantern slides, and stereoscopes with views. These illustrate zoology, botany, geology, mineralogy, architecture, notable paintings, geography, and important features of various countries. They are circulated in regular order amongst the primary and secondary schools of the city, for use as object lessons rather than for the direct teaching of any particular subject. One essential feature is the selection of really good and striking objects, and not merely duplicates from the museum. Dealing with the general side of the question, Mr. Howarth said he hoped that ere long all provincial museums would come under the management of the education committee, and that they would be directly co-ordinated with the teaching in their secondary and elementary schools. That might best be done now when secondary education itself was coming under the management of the education committee.

A paper of much historic interest was submitted by Mr. Alexander Hutcheson, F.S.A. (Scot.), whose subject was "An Early Dundee Museum." He commenced by observing that in Dundee, as elsewhere, it was the case that private effort preceded public action. After referring to the inception in 1810 of the Rational Institution, which had its headquarters in Overgate, he traced the circumstances of the foundation of the Watt Institution, from which the first public museum in Dundee was evolved. In 1852 the institution was wound up, when a number of its books, etc., were removed to Lindsay Street Hall, where they remained until 1867, when they were purchased by the Albert Institute directors.

Mr. James Duncan, sub-curator of Dundee museum, read an interesting paper dealing with his experience of Sunday opening in the city. He said theirs was the furthest north museum—Imperial or civic—which ever opened its door on a Sunday in what they were frequently told was "Sabbath-keeping Scotland," and one rejoiced

to be able to say that the opening did not arise from any hostility to Sunday either as a day of religious observance or of rest ; rather, indeed, as a supplementary aid to these. After long, patient waiting, rather unexpectedly the proposal to open the art galleries and museum and reference library and reading room was carried by the town council and the museums committee practically unanimously. The distinct improvement in the attitude and conduct of the very large numbers who at once thronged through the galleries was a hopeful sign. The young people of both sexes, who evidently came for mere pastime, animated conversation, and even flirtation, were taught that these were not the aim of art galleries, and were compelled to silence. The lectures and lecturettes regularly given attracted an increasing proportion of the visitors. In a town with 170,000 inhabitants, 4,000 visitors in five hours was a large number, and it was certain that a large proportion of these would be interested and refined. They claimed no special merit in having such large numbers of visitors ; that arose to a great extent because their museum was in the very centre of the streets, crowded with people on Sundays and holidays. The Sunday attendance at the Dundee museums had been, for the size of the city, very large ; the behaviour of the visitors, never very bad, had steadily improved, and an intelligent interest had been displayed in the objects and works of art, pictorial and applied.

All the papers gave rise to discussion, which was participated in by nearly all the members present. The whole of the papers, together with the discussion, will be published in due course in the *Museums Journal*.

There was a special charm and appropriateness in the visits paid to neighbouring places. One afternoon was spent at St. Andrew's, a city full of antiquities and historical associations. An inspection was made of the cathedral and the castle. Under the direction of Principal Sir James Donaldson and Professor McIntosh, most of the time was spent in studying the university museum and the marine laboratory.

It was a great privilege to be permitted to visit Rossie Priory, Perthshire, the seat of Lord Kinnaird, which contains a collection of pictures by old masters, of inestimable value, and a magnificent collection of Roman antiquities such as no other place in Britain can boast. All these were displayed and labelled in a thoroughly instructive manner.

Perth was visited for the purpose of inspecting the museum, its specially local character giving it a peculiar value as illustrating the natural history of the county.

Glamis Castle, the seat of the Earl of Strathmore, has not only historical importance as the reputed home of Macbeth,—“Hail, Thane of Glamis,”—dating back to the fourteenth century, but contains arms, armour, and various relics associated with great Scottish events, as well as numerous pictures and other works of art. As a study in developments of architecture with associations of Scottish history through many centuries, illustrated by actual specimens, and the beauty of its many art treasures, it held a special attraction for all museum workers.

No report of the meeting could be complete without grateful acknowledgment of the warm reception and kindly hospitality of the Lord Provost and the civic authorities, who did everything possible to ensure the comfort of the members and the success of the meeting; and to this end no one worked with greater ardour than the president, Mr. John Maclauchlan, who forgot nothing, and left nothing undone that tended to promote the good working of the conference, while the ever-thoughtful consideration, unremitting attention, and graceful activities of Mrs. Maclauchlan contributed in no small degree to the thorough success of one of the most useful, fruitful, and enjoyable conferences ever held.

Dr. Hoyle, in moving a vote of thanks to the president at the close of the meeting, expressed the feelings of all present when he attributed to him the success, not merely of the present proceedings, but also in no small degree the work of the Association, at whose meetings since their inception he had been a regular attender and had sub-

mitted stimulating and instructive papers. They wished to place on record their gratitude to, their admiration of, and their affection for Mr. John Maclauchlan.

**List of Annual Conferences, with Places of Meeting
and Names of Presidents.**

<i>Year.</i>	<i>Place.</i>			<i>President.</i>
1. 1890.	LIVERPOOL	..	..	Rev. HENRY H. HIGGINS, M.A.
2. 1891.	CAMBRIDGE	..	..	J. WILLIS CLARK, M.A.
3. 1892.	MANCHESTER	..	..	Prof. W. BOYD DAWKINS, M.A., D.SC., F.R.S.
4. 1893.	LONDON ..	..	..	Sir W. H. FLOWER, K.C.B., D.C.L., LL.D., D.SC., F.R.S.
5. 1894.	DUBLIN ..	..	..	VALENTINE BALL, C.B., LL.D., F.R.S.
6. 1895.	NEWCASTLE-UPON-TYNE			Rev. Canon NORMAN, M.A., D.C.L., F.R.S., F.L.S.
7. 1896.	GLASGOW	..	..	JAMES PATON, F.L.S.
8. 1897.	OXFORD ..	..	..	Prof. Sir E. RAY LANKESTER, K.C.B., M.A., LL.D., F.R.S.
9. 1898.	SHEFFIELD	..	..	Alderman W. H. BRITAIN, F.R.G.S.
10. 1899.	BRIGHTON	..	..	Alderman A. J. HAWKES.
11. 1900.	CANTERBURY	..	..	HENRY WOODWARD, LL.D., F.R.S.
12. 1901.	EDINBURGH	..	..	Sir WILLIAM TURNER, K.C.B., D.SC., D.C.L., LL.D., F.R.S.
13. 1902.	BRADFORD	..	..	W. E. B. PRIESTLEY, M.P.
14. 1903.	ABERDEEN	..	..	F. A. BATHER, M.A., D.SC., F.G.S.
15. 1904.	NORWICH	..	..	S. F. HARMER, sc.D., B.SC., F.R.S.
16. 1905.	WORCESTER	..	..	Rt. Hon. Lord WINDSOR, P.C. (now Earl of Plymouth.)
17. 1906.	BRISTOL ..	..	..	W. E. HOYLE, M.A., D.SC., F.R.S.E.
18. 1907.	DUNDEE ..	..	..	JOHN MACLAUCHLAN, F.R.P.S., F.R.S.G.S.

Museums Association.

DUNDEE MEETING, 1907.

PRESIDENT.

*JOHN MACLAUCHLAN, F.R.P.S., F.R.S.G.S.,
Curator of the Museum and Art Gallery, Albert Institute, Dundee.

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Professor W. BOYD DAWKINS, M.A., D.Sc., F.R.S.
S. F. HARMER, Sc.D., B.Sc., F.R.S.
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Professor Sir E. RAY LANKESTER, K.C.B., LL.D., F.R.S.
Rev. Canon A. M. NORMAN, M.A., D.C.L., F.R.S.
JAMES PATON, F.L.S.
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Sheriff CAMPBELL SMITH, LL.D.

* Member of Executive Committee.

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CARLETON REA, M.A., B.C.L. (Worcester).

1905.

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JOHN MINTO, M.A. (Edinburgh).

*A. M. RODGER (Perth).

T. SHEPPARD, F.G.S. (Hull).

1906.

Dr. H. DEDEKAM (Christiania).

C. H. HUNT (Bootle).

Dr. R. F. SCHARFF (Dublin).

T. SOUTHWELL, F.Z.S. (Norwich).

TREASURER.

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SECRETARY AND EDITOR.

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*E. E. LOWE, F.I.S., Municipal Museum, Leicester.

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JAMES DUNCAN, Albert Institute, Dundee.

PROGRAMME.

MONDAY, JULY 8TH.

Reception Room in Royal Hotel, open for the use of Delegates
and Associates.

Executive Committee Meeting.

Council Meeting.

TUESDAY, JULY 9TH.

Welcome by the Hon. the Lord Provost of Dundee (William Longair,
Esq.).

Address by the President (John Maclauchlan).

* Members of Executive Committee.

Reading and discussion of the following papers :—

"The Method of Collecting and Exhibiting English Pottery and Porcelain," by A. J. Caddie.

"Method of utilising wall spaces for wet preparations," by F. G. Pearcey.

"Natural Grouping in Spirits," by F. G. Pearcey.

"Note on the attitude of the Peacock in showing off," by Dr. A. B. Meyer (with lime-light illustrations).

Luncheon in the Great Hall of the Royal Hotel, by invitation of the Lord Provost, who presided.

Visit to St. Andrews, by invitation of the local committee. The Association was received by Principal Sir James Donaldson and Professor M'Intosh, and visits paid to the University and its Museum, the Cathedral, the Castle, and the Marine Laboratory.

WEDNESDAY, JULY 10TH.

Reading and discussion of papers.

"How to promote the use of Museums by an Institute of Museums," by Huntly Carter.

"Some uses of a Museum of Industrial Art," by W. W. Watts, F.S.A.

"Museums of Elementary and Higher Grade Schools," by H. Bolton, F.R.S.E.

"The School Museum System at Sheffield," by E. Howarth, F.R.A.S., F.Z.S.

"An Early Dundee Museum," by Alex. Hutcheson, F.S.A. Scot.

Interval for luncheon.

Drive to Rossie Priory (Perthshire), the seat of Lord Kinnaird, to see his art collection, and the numerous fine examples of Roman archæology.

Visit to University College, by invitation of Principal Mackay and Professors D'Arcy Thompson, C.B., and Patrick Geddes.

Annual dinner of the Association, Royal Hotel.

THURSDAY, JULY 11TH.

Reading and discussion of papers.

"Our Experience of Sunday Opening," by James Duncan, Sub-Curator, Dundee Museum (Local Secretary).

"Civic Museums," by Professor Geddes, University College, Dundee.

Business Meeting. Election of Council and Officers.

Interval for luncheon.

Excursion by steamer up the Tay to Perth, to visit the Museum.

FRIDAY, JULY 12TH.

Drive to Glamis Castle, the seat of the Earl of Strathmore, Lord-Lieutenant of Angus, and the reputed Castle of Macbeth—

"Hail, Thane of Glamis." Thence to Kirriemuir—J. M. Barrie's

"Thrums," where, after visiting the famous "Window," luncheon in the Ogilvy Arms Hotel. Return *via* Forfar, where tea was provided.

BUSINESS MEETING, JULY 11TH, 1907, DUNDEE.

JOHN MACLAUCHLAN, President in the Chair.
(On board the Steamer to Perth).

The Annual Report and the Treasurer's Statement (which he had submitted on the previous day) were formally adopted. (see page 1 to 3).

It was resolved that steps should be taken to secure the extension of the Museums and Gymnasiums Act of England to Scotland.

Proposed by A. M. RODGER.

Seconded by E. HOWARTH.

Resolved that a summary of the proceedings be published in the issue of the Journal for August, and that separate copies be printed as early as possible for the use of museums, at a price not exceeding sixpence each copy.

Proposed by E. HOWARTH.

Seconded by R. F. MARTIN.

The Council had made enquires as to the cost and method of registering the Association, and it was decided not to proceed further with the matter.

The president announced that the next meeting of the Association would be held in Ipswich, in 1908, on the invitation of the Mayor and Corporation.

The result of the ballot for officers, council and executive committee was then announced as follows:—

President: Jonathan Hutchinson, D.Sc., LL.D., M.D., F.R.S.

Vice-Presidents: Alderman J. T. Brooks, Dr. A. B. Meyer.

Council: F. Woolnough, A. Lancaster, E. M. Holmes, H. M. Platnauer, W. H. Edwards, H. Bolton, A. M. Rodger, T. Sheppard, Dr. H. Dedekam, C. H. Hunt, Dr. R. F. Scharff, T. Southwell.

Executive Committee: H. M. Platnauer, C. H. Hunt.

Treasurer: Alderman W. H. Brittain.

Secretary: E. Howarth.

Assistant Secretary: E. E. Lowe.

Auditors: E. Leonard Gill, J. H. Allchin.

Mr. ALLCHIN: On behalf of the Maidstone Corporation then invited the Association for the year 1909. Maidstone, he said is not a large town in comparison with some of the cities already visited,

but it has a large and important museum, and the neighbourhood simply teems with objects of interest. Then, on behalf of the Corporation and town's people generally, I wish to extend a very warm, cordial and sincere welcome. We shall do all we can to interest and instruct you, and I therefore have much pleasure in giving you the invitation from the corporation of Maidstone for you to select Maidstone for the 1909 meeting, two years hence.

Mr. WOOLNOUGH read a telegram from the curator of the museum at Colchester. "If the Association meetings are held at Ipswich next year and they will spend a half-day at Colchester, the chairman and committee will extend a hearty welcome."

Alderman CARRINGTON said, I have very great pleasure in proposing a vote of thanks to the Lord Provost and members of the corporation of the city of Dundee and to the museums committee. You will all agree that the hospitality that has been given us has been beyond anything we could expect. I thank them on behalf of the Association very heartily, and we shall look forward to the time when we may again visit Dundee. The President must have studied the arrangements for our comfort since the time it was arranged last year to come to Dundee—the arrangements have been perfect. The best thanks of all to the Lord Provost, the corporation and the museums committee of Dundee.

Mr. PLATNAUER in seconding the vote said: We visitors wish to warmly and cordially convince you of our gratitude for the very great kindness that you have shown us. Carried unanimously.

Dr. HOYLE: We wish to record in our minutes our feelings towards our president. Those of us who have regularly attended the meetings and have been members of the Association from the beginning, will know Mr. Maclauchlan as one of the first men to show his love for this movement. The large part of the success which it has achieved is due in no small measure to Mr. Maclauchlan. He has been a regular attendant at our meetings and most of us know how fully he sympathises with the difficulties, and how fully he has helped to elucidate these belonging to museum curators. He is our old and tried friend, our president of this year, and as a prominent member of council I wish to place on record our gratitude, admiration, esteem and affection for John Maclauchlan.

Mr. PATON said: I should like to second in a most enthusiastic manner the vote of thanks which has been proposed in such eloquent terms by our friend Dr. Hoyle. What need we say of John Maclauchlan? He is already far into our hearts and it is impossible to take him any further in, and I am sure that you will all now award him a most loyal vote of thanks in your most emphatic manner. Let us unite in cordially thanking him, and hope that he will be long spared to us. Carried unanimously.

Mr. MACLAUCHLAN: I cannot sufficiently thank you, but I do thank you very heartily, and I wish to say that I regard this as one of the supreme pleasures of my life. I certainly regard this as very appropriate, as it takes place on the great river of my native shire. I shall always regard this as one of the mental treasures of my life. I am glad that you should be pleased with the arrangements we have made for your comfort. Sometimes I thought that we were lacking, but we have done our best. I sincerely thank you all.

Mr. ALLCHIN proposed a very warm and hearty vote of thanks from the Association to Mr. Duncan for his work associated with these meetings.

Mr. BOLTON seconded, and it was carried unanimously.

RULES.

The following rules, prepared by the Executive Committee, and approved by the Council, have been adopted:—

1. The Association shall be called "The Museums Association," and its aim shall be to advance and improve the work of museums, and to extend their usefulness.

2. The Association shall consist of Honorary Members, Ordinary Members, and Associate Members. Each member shall receive one copy of the publications of the Association.

(a) Honorary Members shall be persons distinguished for success in museum work, or for services to the Association; they shall be nominated by the Council, elected by the Association, and shall not exceed 15 in number.

(b) Ordinary members shall be museums subscribing not less than one guinea annually, and may be represented at the annual meetings by not more than three delegates, each having one vote.

(c) Associate members shall be individuals admitted, subject to the approval of the Council, on payment of not less than half a guinea per annum, and each shall have one vote.

3. A general meeting of the Association shall be held annually at a time and place to be determined by the Council for the transaction of business, the reading of papers, and the discussion of matters relating to museums, the place of meeting to be changed each year.

4. The Council shall consist of a President, all past Presidents who are delegates or members of the Association, two Vice-Presidents, one or more Secretaries, Editor, Treasurer, and twelve other members (who may be associates or representatives of museums). Five shall constitute a quorum. Additional Vice-Presidents (making

not more than twelve in all) who must be delegates or associates, may be appointed by the Council for the annual meeting only. The President, Vice-Presidents and four ordinary members of Council shall retire each year, and be ineligible for re-election for one year.

5. An Executive Committee consisting of the President, Treasurer, Secretaries, Editor and two other members of the Council shall be appointed by the Association at each annual meeting. The railway fares and necessary expenses of members attending Executive Committee meetings shall be paid by the Association. The Executive Committee shall take the place of the Council during that part of the year in which the Council does not sit. It shall be competent to perform all duties which are entrusted to the Council except such as are specifically withheld from its operation; and in cases of emergency which have not been provided for may take such action as seems desirable in the interest of the Association. The Executive Committee shall present a report of its proceedings to the Council at each meeting. Meetings of the Executive Committee shall be summoned by the President or the Secretary, at such time and place as the President shall determine, or at the request of any three members of the Committee, at such time and place as those members shall determine. Three shall constitute a quorum.

6. The Council, Officers (except the past-presidents), Executive Committee and two Auditors shall be elected by ballot at the annual general meeting, and shall hold office till the next annual meeting of the Association. Two months before the annual meeting the Secretary shall forward a list of the existing Council, Officers and Executive Committee to each member, who shall be at liberty to make any fresh nominations to any of the offices and council, such nominations to be returned to the Secretary three clear days before the annual meeting. The Council at its annual meeting shall be entitled to add any further names, when all the nominations shall be printed on one list (the names recommended by Council being indicated) a copy to be given to each member present at the annual meeting at least one day before the elections take place. The Council and Executive Committee shall have power to fill any vacancies that may occur in their ranks between any two annual meetings.

7. These rules may be amended at any annual meeting, one calendar month's notice having been given to the members of any resolution affecting the rules. It shall be the duty of the Secretary to notify to the members any proposed resolution affecting the rules, which may be communicated to him. Amendments to such proposed resolution and restricted to the question therein dealt with shall be admitted to discussion and submitted to the vote at the annual general meeting.

List of Delegates and Associates present at the Meeting.

- J. H. Allchin, The Museum, Maidstone.
 Councillor Booth, Bootle.
 H. L. Brækstad, Eltham.
 Mrs. H. L. Brækstad, Eltham.
 Alderman W. H. Brittain, F.R.G.S., Sheffield Museum.
 H. Bolton, F.R.S.E., Bristol Museum.
 Mrs. Bolton, Bristol Museum.
 Alderman Brooks, Bolton Museum.
 Alf. J. Caddie, The Museum, Stoke-upon-Trent.
 Mrs. A. J. Caddie, Stoke-upon-Trent.
 Alderman A. Carrington, J.P., Burnley.
 F. L. Cohen, Glasgow.
 J. A. Charlton Deas, The Museum, Sunderland.
 J. S. Collinger, J.P., Burnley.
 David Douglas, Dundee.
 James Duncan, „
 Joseph Dundas, „
 D. E. Edward, „
 W. H. Edwards, Victoria Institute, Worcester.
 Jas. Eggleston, Paisley Museum.
 Councillor C. M. Foden, Burnley Museum.
 Prof. Patrick Geddes, F.R.S.E.
 E. Leonard Gill, M.Sc., Hancock Museum, Newcastle-on-Tyne.
 William D. Henderson, M.A., Dundee.
 Edward Hewitt, The Museum, Stockport.
 Councillor R. Holmshaw, Sheffield Museum.
 Linnæus E. Hope, The Museum, Carlisle.
 E. Howarth, F.R.A.S., F.Z.S., Sheffield Museum.
 Mrs. Howarth, Sheffield.
 W. E. Hoyle, M.A., D.Sc., Manchester Museum.
 Charles H. Hunt, Bootle Museum.
 W. H. Kershaw, The Victoria Institute, Worcester.
 H. F. Klingenberg, Nordenfjeldske Kunstindustri Museum, Trond-
 hjem, Norway.
 Alfred Lancaster, Museum, St. Helens.
 Frank Leney, Castle Museum, Norwich.
 John Maclauchlan, F.R.P.S., F.R.S.G.S., Dundee.
 Mrs. John Maclauchlan, Dundee.
 Charles Madeley, The Museum, Warrington.
 Robert F. Martin, Victoria and Albert Museum.
 Thomas May, F.E.I., F.S.A. Scot., Warrington Museum.
 Thos. Midgley, F.R. MET. S., Chadwick Museum, Bolton.
 S. L. Mosley, Technical College, Huddersfield.
 Prof. Nozawa, Japan.

Alfred Ogilvie, Dundee.
 Alderman Edward Packard, Ipswich.
 Gill Parker, The Ruskin Museum, Sheffield.
 James Paton, F.L.S., Glasgow.
 H. M. Platnauer, B.Sc., The Museum, York.
 Nathan Ramsden, Bolton.
 A. M. Rodger, Perth Museum.
 F. R. Rowley, The Royal Albert Memorial Museum, Exeter.
 Rev. James Scotland, Dundee.
 David Scott, "
 T. Sheppard, F.G.S., Museum, Hull.
 David Small, Jr., Dundee.
 Mrs. David Small, "
 Thomas Southwell, F.Z.S., Norwich.
 Prof. Steggall, M.A., Dundee.
 Herbert S. Toms, The Museum, Brighton.
 James Tosh, M.A., D.Sc., Dundee.
 W. W. Watts, F.S.A., Victoria and Albert Museum.
 Alexander Webster., Dundee.
 George West, "
 H. Bantry White, M.A., I.S.O., Dublin Museum.
 Frank Woolnough, Ipswich Museum.

LOCAL COMMITTEE.

David Air.	William C. Leng.
Ex-Provost Gallingall.	William Low.
Ex-Lord Provost Barrie.	S. M. Low.
D. M. Brown.	Ex-Lord Provost M'Grady.
J. C. Buist.	Alexander Mackay, C.A.
James K. Caird.	William Mackenzie.
D. L. Carmichael.	Mrs. Carlaw Martin.
James Carmichael, of Arthursstone.	J. H. Martin.
William Cleghorn.	A. P. Mathewson.
Alfred W. Cox.	Ex-Lord Provost Mathewson.
Bailie Crichton.	Bailie Mechan.
David Dickie.	Bailie Melville.
Bailie Don.	Bailie Mitchell.
Robert B. Don.	Charles Ower.
James K. Foggie.	Bailie Perrie.
Councillor Forwell.	Joseph Philip.
William Gibson.	Bailie Quirk.
Alexander Gilroy, of Ballumbie.	John Reid.
Councillor Henderson.	William Rettie.

Baillie Robertson.	Robert Smith.
T. S. Robertson.	D. C. Thomson.
Frederick B. Sharp.	Treasurer Urquhart.
Robert B. Sharp.	I. J. Weinberg.
Alexander Simpson.	Rev. Walter Walsh.
James Smieton.	J. Martin White, of Balruddery.
Councillor Speed.	

MEMBERS.

<i>Date of entry.</i>	<i>Museum.</i>	<i>Curator.</i>
1901	Adelaide, S. Australia .	Prof. E. C. Stirling.
1903	Altona, Germany.. ..	Dr. O. Lehmann.
1893	Australian, Sydney ..	
1894	Baroda State Museum .	Prof. A. M. Masani, M.A., B.Sc.
1905	Belfast	Arthur Deane.
1890	Blackburn	R. Ashton.
1889	Bolton	T. Midgley.
1890	Bootle	C. H. Hunt.
1902	Boston Museum of Fine Arts, Mass.	Library.
1889	Bradford	Butler Wood.
1893	Brighton	Henry Roberts.
1899	Bristol	H. Bolton.
1904	Burnley.. .. .	C. M. Foden, J.P.
1903	Cambridge University Museum of Zoology .	S. F. Harmer, Sc.D., B.Sc., F.R.S.
1898	Canterbury	
1895	Capetown (S. African Museum)	L. Péringuey.
1890	Cardiff	John Ward, F.S.A.
1903	Carlisle	L. E. Hope.
1892	Chester (Grosvenor Museum)	A. Newstead
1901	Chicago (Field Columbian Museum)	Dr. F. J. V. Skiff.
1897	Colombo, Ceylon	Gerard A. Joseph, (Sec. and Lib.).
1903	Crefeld (Kaiser Wilhelm Museum)	Dr. F. Deneken.
1906	Danzig, West Prussian Provincial Museum .	Dr. Conwentz.
1902	Dresden (R. Zool. Anthr. Ethn. Mus.) .	The Director.
1905	Dublin (Institutions of Science and Art) ..	Lt.-Col. G. T. Plunkett, C.B.

<i>Date of entry.</i>	<i>Museum.</i>	<i>Curator.</i>
1891	Dundee	J. Maclauchlan.
1903	Essex Museum of Nat. History	Wm. Cole.
1906	Exeter	F. R. Rowley.
1890	Glasgow	James Paton, F.L.S.
1901	Grimsby Naturalists' Society	A. Bullock.
1903	Halifax Public Library .	J. Whiteley.
1905	Hamburg (Naturhist- orisches Museum) ..	Dr. K. Kraepelin.
1903	Hamburg, Kunsthalle..	
1890	Hanley	Louis H. Jahn.
1905	Hastings, Corporation Museum	W. R. Butterfield.
1890	Hereford	J. Cockcroft.
1904	Hertfordshire, County Museum	G. E. Bullen.
1901	Hull	T. Sheppard, F.G.S.
1907	Ipswich	F. Woolnough.
1904	Keighley	S. L. Mosley.
1907	Kimberley (Alexander McGregor Memorial Museum)	
1903	Leiden, Nat. Hist. Mus.	Dr. F. A. Jentink.
1890	Liverpool	H. O. Forbes, LL.D.
1893	London, Parkes Mus. of Sanitary Institute ..	W. H. Knight.
1893	London Pharmaceutical Society	E. M. Holmes, F.L.S.
1904	London, Royal United Service Institution ..	Secretary.
1903	Lund (Kulturhistoriske Museum)	G. Johanson Karlin.
1890	Maidstone	J. H. Allchin.
1890	Manchester	Dr. W. E. Hoyle.
1905	Manchester Art Gallery.	Wm. Stanfield.
1890	Manchester (Queen's Park Museum).	
1905	Manx Museum, Castle Rushen	P. M. C. Kermodé.
1893	Middlesbrough	Baker Hudson.
1903	Nancy	Dr. E. Hecht.
1895	Newcastle-on-Tyne ..	E. L. Gill, M.Sc.
1903	Newport, Mon.	J. C. Brook.

<i>Date of entry.</i>	<i>Museum.</i>	<i>Curator.</i>
1890	Northampton	F. J. George.
1900	Norwich	James Reeve.
1890	Nottingham	J. W. Carr, M.A.
1907	Paisley	J. Eggleton.
1895	Perth	A. M. Rodger.
1897	Perth, W. Australia ..	B. H. Woodward, F.G.S., C.M.Z.S.
1905	Philadelphia . . .	W. P. Wilson.
1897	Pittsburgh, Carnegie Museum	W. J. Holland, LL.D.
1902	Plymouth	T. V. Hodgson.
1901	Preston	W. B. Barton.
1903	Rochdale	F. Williamson.
1890	Saffron Walden	G. N. Maynard.
1890	Salford	B. H. Mullen, M.A.
1893	Salt Lake City, Utah (Deseret Museum) ..	Dr. J. E. Talmage, F.R.S.E.
1889	Sheffield Public Mus. ..	E. Howarth.
1890	Sheffield Ruskin Mus. .	Gill Parker.
1899	St. Helen's, Lancashire	A. Lancaster.
1890	Stockport	Ed. Hewitt.
1906	Stoke-on-Trent	A. J. Caddie.
1890	Sunderland	J. A. C. Deas.
1903	Sydney, Australia (Tech- nological Museum) ..	R. T. Baker.
1903	Trondhjem	Dr. Jens Thiis.
1890	Warrington	C. Madeley.
1902	Washington (Smithson- ian Institution) . .	Secretary.
1896	Winchester College Nat. Hist. Society	C. Griffith, M.A.
1890	Worcester	W. H. Edwards.
1904	Yarmouth	Wm. Carter
1890	York	Oxley Grabham, M.A.

ASSOCIATES.

- 1904 Afalo, F. G., 3, Den Crescent, Teignmouth, Devon.
 1901 Allen, G. M., Society of Natural History, Boston, Mass.
 1902 Baker, Frank C., Academy of Science, Chicago, U.S.A.
 1898 Balfour, Henry, M.A., Pitt-Rivers Museum, Oxford.
 1890 Bather, F. A., M.A., British Museum (Natural History), London.
 1903 Bather, Mrs. F. A., Marryat Road, Wimbledon, London, S.W.
 1901 Benham, W. B., Otago University Museum, Dunedin, N.Z.

- 1903 Bolton, Herbert, Museum, Bristol.
- 1901 Borrajo, Edward M., Guildhall Library, London, E.C.
- 1904 Brækstad, H. L., Hill House, Court Road, Eltham, Kent.
- 1907 Brækstad, Mrs., Hill House, Court Road, Eltham, Kent.
- 1907 Brogden, R. J., 28, Colville Square, London, W.
- 1895 Brunchorst, Dr. J., Bergens Museum, Bergen.
- 1899 Carpenter, Prof. Geo. H., Royal College of Science, Dublin.
- 1893 Cheeseman, T. F., Auckland Museum, N.Z.
- 1907 Chubb, Ernest, F.Z.S., Rhodesia Museum, Bulawayo.
- 1907 Cohen, Frank I., 2, Alfred Terrace, Hillhead, Glasgow.
- 1904 Colman, R. J., Brackendale Woods, Norwich.
- 1903 Crowther, Henry, F.R.M.S., Museum, Leeds.
- 1904 Dedekam, Hans, Museum for Art and Industry, Christiania.
- 1893 Denny, Prof. A., F.L.S., University, Sheffield.
- 1901 Director, Government Museum and Public Gardens, Trivandrum, Trovancore, India.
- 1904 Director, Port Elizabeth Museum, S. Africa.
- 1892 Donner, E., Oak Mount, Fallowfield, Manchester.
- 1892 Donner, Mrs. E., Oak Mount, Fallowfield, Manchester.
- 1907 Dowling, Alfred, 125, North Road, Bishopston, Bristol.
- 1903 Draper, Miriam S., Children's Museum of the Institute of Arts and Science, 185, Brooklyn Avenue, New York.
- 1904 Dublin, Librarian, National Library of Ireland.
- 1907 Dundas, Joseph, Dundee.
- 1907 Edward, D. E., Dundee.
- 1904 Flower, V. A., Glencaird, Singapore.
- 1901 Ford, James, Radcliffe Library, Oxford.
- 1901 Franklin, W. E., 42, Mosley Street, Newcastle-on-Tyne.
- 1903 Frauberger, Dr., Kunstgewirbe Museum, Dusseldorf.
- 1904 Friedländer, R., 11, Karlstrasse, Berlin.
- 1906 Fry, F. J., J.P., Cricket St. Thomas, Chard.
- 1906 Fry, Rt. Hon. Lewis, Goldney House, Clifton, Bristol.
- 1901 Giglioli, Prof. Dr. H. R., Museo Zoologico, 19, Via Romana, Florence.
- 1902 Goeldi, Prof. Dr. Emil, Museum, Para, Brazil.
- 1898 Goldney, F. Bennett, Goodnestone Park, Dover.
- 1898 Gould, I. Chalkley, Traps Hill House, Loughton, Essex.
- 1906 Green, T. E., Willowgrove, Horbury, Yorkshire.
- 1892 Greening, L., Grappenhall, near Warrington.
- 1906 Griffiths, G. C., 42, Caledonia Place, Clifton, Bristol.
- 1904 Gurney, E., Sprowston Hall, Norwich.
- 1904 Haddon, Alfred, M.A., D.Sc., F.R.S., Inisfail, Cambridge.
- 1897 Hall, Miss Kate M., Museum, Whitechapel, London.
- 1904 Hanitsch, R., Raffles Library and Museum, Singapore.
- 1904 Harmer, F. W., Cringleford, Norwich.
- 1907 Henderson, William D., M.A., Dundee.

- 1895 Henshaw, S., Museum of Comp. Zoology, Cambridge, Mass.
 1905 Hillig, Fred J., St. John College, Toledo, Ohio.
 1897 Hodgson, T. V., 54, Kingsley Road, Plymouth.
 1903 Holmes, Mrs. E. M., 17, Bloomsbury Square, London, W.C.
 1903 Hoyle, Mrs. W. E., Museum, University, Manchester.
 1903 Hugel, Baron Anatole von, Museum of Archæology, Cambridge.
 1890 Hughes, Prof. T. McKenny, Woodwardian Museum, Cambridge.
 1907 Hutcheson, Alex., F.S.A., Hershell House, Broughty Ferry, N.B.
 1897 Hutchinson, Jonathan, 15, Cavendish Square, London, W.
 1903 Hutchinson, Miss S. A., Librarian, Brooklyn Institute, Arts and Science, Brooklyn, U.S.A.
 1900 Irving, John, 23, Bennett Park, Blackheath, S.E.
 1895 Jackson, Dr. R. F., 9, Fayerweather Street, Cambridge, Mass.
 1907 Jacobi, Dr. A., Zoological Museum, Dresden.
 1903 Koetschau, Dr. Karl, Royal Historical Museum, Weimar.
 1905 Leach, Miss Mary Hughes, Museum, West Bromwich.
 1901 Levander, Dr. K. M., Helsingfors, Finland.
 1898 Librarian, Free Library, St. Martins, London, W.C.
 Library Association, London School of Economics, Clare Market, W.C.
 1901 Library, Education Department, Toronto, Canada.
 1903 Library, Museum of Fine Arts, Boston, Mass.
 1907 Lockey, J., Lyndhurst, Hastings.
 1907 Lowe, E. E., Museum, Leicester.
 1895 Lucas, F. A., Museum of the Brooklyn Institute, Eastern Parkway, N.Y.
 1907 Maclauchlan, Mrs. John, 11, Douglas Terrace, Broughty Ferry.
 1902 Maitland, A. Gibb, W. Australian Museum, Perth.
 1902 Martin, N. H., Ravenswood, Low Fell, Gateshead.
 1894 Martin, R. F., "Ashton," 15, Muswell Avenue, Muswell Hill, London, W.
 1903 Martin, Mrs. R. F., 15, Muswell Avenue, Muswell Hill, London.
 1900 Morgan, John, 10, Ambrose Place, Worthing.
 1903 Murray, Jas., M.P., Glenburnie Park, Aberdeen.
 1906 Newstead, Robert, Tropical Laboratory, University, Liverpool
 1897 Newton, E. T., Florence House, Wilton Bridge Road, Canonbury.
 1905 New York, Metropolitan Museum of Art, Fifth Avenue.
 1907 Ogilvie, Alfred, Dundee.
 1898 Parkin, Wm., 10, The Mount, Glossop Road, Sheffield.
 1904 Paterson, Robert, F.Z.S., Glenbank, Holywood, Co. Down, Ireland.
 1905 Patten, C. J., B.A., M.D., University, Sheffield.
 1901 Penrose, Geo., Museum, Truro.
 1897 Petrie, Prof. Wm. Flinders, University College, Gower Street, London, W.

- 1904 Phipson, H. M., Natural History Society, 6, Apollo Street, Bombay.
- 1890 Phipson, Miss Emma, Park Villa, Bell Street, Reigate.
- 1901 Plunkett, Count, Kilternan Abbey, Co. Dublin.
- 1902 Priestley, Ald. W. E. B., M.P., 65, Vicar Lane, Bradford.
- 1904 Quick, Richard, Art Gallery, Bristol.
- 1900 Reeve, James, Castle Museum, Norwich.
- 1905 Riddiough, J. T., Bolton Old Hall, Bolton, Bradford.
- 1890 Rudler, F. W., I.S.O., F.C.S., 18, St. George's Road, Kilburn, London, N.W.
- 1904 Sandars, Horace, 10, H., Queen Anne's Mansion, Westminster, S.W.
- 1897 Sclater, Dr. P. L., F.R.S., Odiham Priory, Winchfield.
- 1907 Scotland, Rev. James, Dundee.
- 1907 Scott, David, Dundee.
- 1901 Skiff, Dr. F. J. V., Field Museum of Natural History, Chicago, U.S.A.
- 1907 Small, David, Jr., Dundee.
- 1907 Small, Mrs. David, „
- 1902 Smith, Geo. H., Cortland Science Club, Cortland, N.Y.
- 1901 Smith, G. Jackson, Hazelwood, Ranmoor, Sheffield.
- 1896 Smith, Harlan I., American Museum, Natural History, Central Park, New York.
- 1905 Smith, Mrs., 56, Devonshire Street, Keighley.
- 1899 Sorby, H. C., LL.D., Broomfield, Sheffield.
- 1904 Southwell, Thos., F.Z.S., 10, The Crescent, Norwich.
- 1907 Steggall, Prof., M.A., Dundee.
- 1903 Stone, H., F.L.S., Bracebridge Street, Birmingham.
- 1902 Swanton, E. W., Educational Museum, Haslemere, Surrey.
- 1903 Thompson, S. E., Free Library, Swansea.
- 1904 Tillett, W. S., "Catton," Norwich.
- 1907 Tosh, James, M.A., D.Sc., Dundee.
- 1896 Trail, Prof., University Library, Aberdeen.
- 1901 Vallance, D. J., Museum of Science and Art, Edinburgh.
- 1906 Vaughan, P. H., Redland Hill House, Redland Hill, Bristol.
- 1901 Vis, C. W. de, Queensland Museum, Brisbane.
- 1906 Waite, Edgar R., Canterbury Museum, Christchurch, N.Z.
- 1903 Walker, Henry, 37, Briggate, Leeds.
- 1906 Walls, Ald. J., 50, Park Street, Bristol.
- 1904 Watts, W. W., F.S.A., 119, Bishop's Mansions, Fulham, London, S.W.
- 1907 Webster, Alexander, Dundee.
- 1907 West, George, Dundee.
- 1897 White, Thomas, 57, Highbury Hill, London, N.
- 1905 Wigglesworth, R., The Museum, Accrington.
- 1906 Wills, G. A., Burwalls, Leigh Woods, Bristol.

- 1901 Woodward, B. H., F.G.S., C.M.Z.S., Museum and Art Gallery,
Perth, W. Australia.
- 1897 Woodward, Dr. Henry, F.R.S., 129, Beaufort Street, Chelsea,
London, S.W.
- 1895 Woolnough, F., Museum, Ipswich.
- 1902 Wray, L., C.I.S.O., Perak Museum, Taiping, Perak, Straits
Settlement.
- 1902 Wright, A. G., Corporation Museum, Colchester.
- 1892 Yates, Geo. C., F.S.A., Hon. Sec., Lancashire and Cheshire
Antiquarian Society, Holmfield, Westbourne Park, Urm-
stone, near Manchester.

HONORARY MEMBERS.

- 1902 Sir E. Maunde Thompson, K.C.B., D.C.L., LL.D., Principal
Librarian, British Museum, London.
- 1902 Sir William de W. Abney, K.C.B., D.C.L., F.R.S., Victoria and
Albert Museum, South Kensington, London.
- 1902 Sir Thomas D. Gibson Carmichael, Bart., Castlecraig, Dolphin-
ton, N.B.
- 1902 Dr. A. B. Meyer, Museum, Berlin.
- 1903 F. Grant Ogilvie, Board of Education, S. Kensington, London.

National Galleries of Scotland.

THE Secretary for Scotland has appointed the following to be the members of the Board of Trustees for the National Galleries of Scotland, which is to be established as from the 1st April, 1907 :—

Sir THOMAS D. GIBSON-CARMICHAEL, Bart. (Chairman).

Sir JOHN STIRLING MAXWELL, Bart.

Sir JAMES GUTHRIE, P.R.S.A.

The Right Hon. the LORD PROVOST of Edinburgh.

The Hon. the LORD PROVOST of Glasgow.

JAMES MURRAY, Esq., M.P., of Glenburnie, Aberdeen.

JOHN RITCHIE FINDLAY, Esq., Edinburgh.

NATIONAL GALLERIES OF SCOTLAND ORDER, 1907.

Simultaneously with the issue of the names of the Trustees, comes the following National Galleries of Scotland Order, 1907 :—

Whereas, by section three of the National Galleries of Scotland Act, 1906 (hereinafter referred to as " the Act "), it is provided that " a Board shall be established for the purpose of managing the National Galleries of Scotland and for such other purposes connected with the promotion of the fine arts in Scotland as may be prescribed. The Board shall be called the Board of Trustees for the National Galleries of Scotland, and from and after the establishment of such Board the Board of Trustees for Manufactures in Scotland (in this Act referred to as the Board of Manufactures), established by the Linen and Hempen Manufactures (Scotland) Act, 1726, the Fisheries (Scotland) Act, 1726, and letters patent issued in pursuance of the last-mentioned Act, and by any amending Acts, shall cease to exist," and a reference to the Board of Manufactures in any Act shall " be construed as a reference to the Board, and subject to the provisions of this Act, all the powers, duties, and liabilities vested in or imposed on the Board of Manufactures by any letters patent, Treasury minute, deed, or other instrument, shall, until otherwise prescribed, be

vested in, transferred to, and imposed on the Board, and, subject as aforesaid, the powers and duties of the Board shall be such, and shall be exercised and discharged by the Board in such manner, as may be prescribed."

And whereas, by sub-section two of section four of " the Act " it is provided that " the Board shall be established from and after the prescribed date, not being a later date than the first day of April nineteen hundred and seven : "

And whereas, by section seven of " the Act " it is provided that " from and after the establishment of the Board the buildings presently vested in the Board of Manufactures, known as the Royal Institution, the National Gallery, the National Portrait Gallery and Dunblane Cathedral, shall pass to and be vested in the Commissioners of Works, in the case of the two first mentioned buildings for such purposes as may, with the consent of the Treasury, be described : "

And whereas, by section two of " the Act " it is provided that " in this Act (unless the context otherwise requires),

" The Board " shall mean the Board of Trustees established by this Act :

" Prescribed " shall mean prescribed by Order under the hand of the Secretary for Scotland ; provided that every such Order shall be laid as soon as may be upon the table of both Houses of Parliament :

" The National Galleries of Scotland " shall, until otherwise prescribed, mean the several buildings situate in Edinburgh, and known as the Royal National Institution, the National Gallery, and the Portrait Gallery, and shall include any other buildings which may be prescribed :

" Buildings " shall include any land held with or for the purposes of a building : "

And whereas the Town Council of Edinburgh have resolved to establish a Municipal School of Art in Edinburgh and have agreed to take over, as from the first day of April

nineteen hundred and seven, the management of the School of Art presently carried on by the Board of Manufactures :

Now therefore I the Right Honourable John Sinclair, His Majesty's Secretary for Scotland, with the consent of the Treasury, so far as such consent is required by "the Act," do hereby prescribe as follows :—

1. The date from and after which the Board shall be established shall be the first day of April nineteen hundred and seven.

2. From the powers, duties, and liabilities vested in or imposed on the Board of Manufactures by any letters patent, Treasury Minute, deed, or other instrument, which shall be vested in, transferred to, and imposed on the Board shall be excepted the powers and duties vested in or imposed on the Board of Manufactures for carrying on a School of Art.

3. The purposes for which the buildings known as the Royal Institution and the National Gallery shall pass to and be vested in the Commissioners of Works shall, until otherwise prescribed, be the purposes for which the said buildings are presently held.

4. This Order may be cited as the National Galleries of Scotland Order, 1907.

Museum Publications.

Belfast.

No. 5 of the quarterly notes (March, 1907), has as frontispiece a plate figuring four types of spinning wheel in illustration of Mr. John Horner's recent gift of over 90 spinning wheels gathered from every part of Europe. Mr. Deane writes a very interesting note on the various kinds of wheel in this unique collection. There are also some useful notes on Irish coins and tokens (illustrated by a plate), written with special reference to a collection lent by Mr. Patterson. Short notes on Irish illumination, the Bell of Bangor (Co. Down), the Shrine of St. Patrick's Bell,

Indian samplers, cockchafers and lichens are added, and there is a full list of accessions. We hope to be forgiven if we speak a word of mild protest against the word "donate." Surely "give" expresses just as much, and it is English. This protest we can utter freely, because we fully appreciate the value of Mr. Deane's interesting pamphlet.

Dublin.

The report for the year ending March 31st., 1906, records a diminished attendance compared with that of the previous year, but shews an increase in the number of visitors to Glasnevin Gardens. A very large amount of work has been done by the staff, and most valuable assistance has been given by Miss Knowles, Mr. Dudley Westropp and Colonel Day. During the year, the director has visited Greece and the eastern coast of the Adriatic, and has taken part in the congress held at Liege. Dr. Scharff attended the Zoological Conference at London, and various members of the staff have travelled either to attend meetings or obtain specimens. Nowhere is the value of travel more fully recognised than at Dublin. In the matter of publications—a department in which Dublin has also been at all times prominent—great activity has been shown. During the year, 804 parts of the general guide have been sold, and 14,770 copies of the half-penny guide. The 38th edition of the latter is now almost exhausted. During the year there have been added to the general guide chapters on French porcelain, Spanish pottery, Japanese lacquer, Christian period of Irish antiquities and Irish ethnology. The director has also written a short popular guide to the Glasnevin Gardens which will be sold for a half-penny a copy. Fifteen demonstrations have been given in the museum, and have been well attended. To the circulation collections have been added 44 cases, making a total of 161; and the number of explanatory leaflets has been increased from 34 to 64. Six hundred cases have been circulated during the year to 38 schools, classes or exhibitions.

New York.

The trustees of the Metropolitan museum of art, in their report for 1906, expressly state that the year has not been eventful. No extraordinary event has occurred, no accession of unusual value or interest has been received. but work has proceeded steadily, the collections have been considerably increased and progress has been made in every department. A no less gratifying feature is the interest taken in the museum by the public, an interest evidenced by an increase in membership and in attendance, and also in generous help given by the city authorities. An extension of the museum is in progress, and the addition of a new wing to the library is authorized. Mr. George A. Hearn has presented thirty eight paintings, and has given 150,000 dollars for a fund, the interest of which is to be used for the purchase of paintings by artists now living, who are, or may be at the time of purchase, citizens of the United States. The Museum Bulletin completed its first volume with the December number. It began as a quarterly, became bi-monthly, and later monthly. There can be no better tribute to the activity of the museum than this evolution in the history of its publication.

Haslemere.

In the March and April numbers of the "Museum Gazette," a large proportion of space is devoted to mosses. The names and descriptions of sixteen common species are given in such a way that they can be cut up and used for labels. Unfortunately they have been printed on both sides of the paper. The March Editorial suggests that the Museums Association should take up the question of preparing a general form of catalogue for Educational museums. An interesting article on museums gives a classification of these institutions into general, county, metropolitan (or national), educational and folk museums. In the course of this article, reference is made to a recent controversy between the Editor of this Gazette and that of a northern natural history journal. The Editor of the

Museum Gazette is quite right in his assertion that the museums of York and Chester are not local in the usual sense of the term. And we hold that he is also right in his contention that a general museum is of far greater educational value than a merely "local" one. The Editorial for April contains an appreciative review of Sayce's "Monument, facts and higher critical fancies." Both numbers contain numerous short articles of considerable interest, *e.g.* on "witches' brooms," hollow trees, human noses, Mendel's principles of heredity, the discovery of spectacles, &c. There are several useful chronological tables, which are interesting, even though they sometimes contain daring surmises. We cannot help feeling some doubt about the dates 2000 B.C., and 1000 B.C. for the beginning of the Bronze Age in Britain, and the Goidelic invasion of the country; and we are on sure ground in asserting that Francis I. of France died in 1547, not 1597. We must also express decided dissent from the Editor when he claims (p. 600) the support of this journal for his assertion that King's Lynn possesses only the nucleus of a museum. A reference to (p. 105) of the directory (vol. III. of the Museum Journal) will quite disabuse him of this notion; but having made these criticisms, we wish now to record our high appreciation of the "Museum Gazette" and to urge our readers to support this excellent and enterprising periodical. Five shillings a year is a moderate price for the wealth of general information contained in the pages of the Gazette.

Colchester.

The report on the Colchester museum for the year ending March 31st, 1907, cannot fail to be gratifying to all who take an interest in that institution. Much work has been done on the collections, and great progress has been made, in spite of the fact that the museum suffers acutely from want of space. The acquisitions are numerous, and include a large number of valuable gifts. Prominent amongst the latter are a collection of ancient British coins presented by Ald. H. Laver, F.S.A. (Honorary Curator of

the museum), and a series of Roman Imperial denarii given by Sir John Evans, K.C.B. Mr. Harrington Lazell has presented a Roman mosaic floor found on his estate. This mosaic pavement was removed and re-set by the curator. It is pleasing to note that the progress made in the museum has met with public recognition. The attendance for the year was over 31,000, an increase of nearly 1,500 on the previous year.

General Notes.

AT HOME.

MUSEUM HONOURS.—Prof. Sir E. Ray Lankester, director of the British Museum (Nat. Hist.), has been appointed K.C.B., and Mr. H. Bantry White, of the Science and Art Museum, Dublin, has been honoured with the I.S.O.

APPOINTMENTS.—Mr. T. V. Hodgson has been appointed curator of the Plymouth museum, a post he formerly occupied, now succeeding Mr. E. E. Lowe, who has been transferred to Leicester. Mr. F. A. Potts has been appointed assistant to the superintendent of the museum of zoology, Cambridge University. Mr. G. S. Hett to be assistant in the department of anatomy and curator of the anatomical museum of University College, London. Mr. W. P. Pycraft has been made an assistant in the zoological department of the British museum; his work will be chiefly in connection with bird skeletons.

RETIREMENTS.—Lt. Col. G. T. Plunkett, C.B., has just retired, under the age limit, from the position of director of the museum of science and art, Dublin. Professor L. C. Miall has relinquished the chair of biology in the Leeds university.

MANCHESTER ART GALLERIES.—In consequence of the death of Mr. C. G. Virgo, which occurred in March last, the museum at Queen's Park, of which he was curator, has now been put under the direction of W. Stanfield, curator of the City art gallery, who has also charge of Heaton Park art gallery, recently established in Manchester.

MANCHESTER MUSEUM.—Mr. Mark Stirrup, F.G.S., of Bowdon, Cheshire, who died on June 10th, bequeathed to

this University £1,000 for the maintenance of a geological and palæontological collection; £1,500 for the foundation of a scholarship for the promotion of the study of palæontology, to be known as the "Mark Stirrup Palæontological Scholarship"; and his cabinet containing specimens of volcanic rocks from Auvergues, and such fossils as the museum authorities of the university shall select.

ABROAD.

APPOINTMENT.—Mr. Charles Louis Pollard, formerly assistant curator of plants in the United States National Museum, has been appointed curator of the Staten Island Association of Arts and Sciences.

BOSTON SOCIETY OF NATURAL HISTORY.—The museum of this Society in Boston, Mass., is open free to the public on Sunday afternoons from one o'clock till five, during June, July, August and September of the present year. On weekdays the exhibition rooms are open free only on Wednesday and Saturday from ten till five. We learn from *Science* that, under the direction of its curator, Mr. Charles W. Johnson, the society has recently endeavoured to complete its collection of the New England flora and fauna and has devoted special attention to the exhibition of this material.

KAISER WILHELM MUSEUM, KREFELD.—The director, Dr. F. Deneken, utilised his acquaintance and friendship with various French artists and museum directors to organise an Exposition d'Art français, from 28th May to 21st July in this year. He had also the active assistance of Mr. Etienne Avenard, who contributed a brief essay to the catalogue. The catalogue, it may be mentioned, is written in French throughout. The exhibition was confined to the works of modern artists. Among the painters are the names of E. Besnard, J. E. Blanche, Cézane, C. Cottet, A. Dauchez, E. Degas, R. Ménard, C. Monet, C. Pissarro, A. Renoir, A. Sisley and T. A. Steinlen, while the sculpture section was fortunate in obtaining works by Bartholomé and Rodin among others.

PROTECTION OF NATURAL MONUMENTS IN SWEDEN.—Haradshöfding E. L. Améen, Professor Einar Lönnberg of the Royal Swedish Academy of Science, Stockholm, and Lektor K. Starbäck, member of the Riksdag, have been appointed a committee under the Swedish Department of Agriculture, for the protection of the more remarkable and interesting natural objects of the country.

NEW ART MUSEUM IN A DANISH COUNTRY TOWN.—The little town of Vejen, which lies in the extreme south of Jutland, half way between the North Sea and the Little Belt, has recently received the sum of £555 to build a museum and exhibition hall for works of art. This museum which is expected in all to cost seven times that amount, will be under the control of Vejen's Art Union. The Danish artist Hansen-Jacobsen has already presented to it all his larger works, partly originals, partly copies. Various members of his family have presented the art union with a site for the museum. Over 100 other Danish artists have promised to exhibit their works in the new building.

MUSEUMS OF MEDICINE.—Dr. Berthold Laufer recently read a paper before the American Anthropological Association, in which, *inter alia*, he pleaded for the establishment in America, perhaps in New York, of a museum representing the development of the history of medicine and the natural sciences and technics. He drew attention to the fact that, on November 13th, 1906, there was laid in Munich the corner-stone of the German Museum of masterpieces of Natural Science and Technics. "A question" he continues, "much ventilated now in the circles of Germany interested, is the plan of a comprehensive museum for the history of medicine, illustrating its development, from the times of prehistoric man down to the present day, in anatomy, surgery, hygiene, endemic diseases and other phases. Such a medical museum, fully deserving of the name, as yet exists nowhere. The medical faculty of the university of Paris moved a resolution to this effect some years ago, but the scheme has not yet been carried out. The only institution that has thus far made any attempt in this direction is the Germanic Museum of Nurnberg, whose very beautiful collections, however, are restricted rather to pharmaceutical than to purely medical antiquities. The first temporary exhibition relating to medical history was held in Düsseldorf in 1898, on the occasion of the annual assembly of the German naturalists and physicians; and similar tendencies developed at the Russian congress of physicians at Moscow, in 1900 with the greatest success." The temporary tuberculosis exhibit in New York last winter was an example of what might be accomplished in that city. "One of the foremost tasks of the future American museum devoted to medical science would certainly be to represent the accomplishments of the

hygiene and technical inventions. In this way we should enlist the interest of physicians in our native population; and students of anthropology might also profit from their mode of viewing the subject or from an active participation in our work. A museum of this type, if developed on the broadest lines, may indeed lead also to new and fruitful anthropological work. I need hardly accentuate here the point that a full historical representation of all endemic and the great epidemic diseases (analogous to the idea of the tuberculosis museums) in connection with the development of hygiene would be a matter of great public service—an undertaking which should meet with the support of all philanthropists. It goes without saying that a museum of this kind would be a scientific, social and educational potency of the highest order—an agency of social progress, not inferior in rank to art or ethnographical museums." Dr. Laufer's paper is printed in *Science* for 7th June, 1907 (pp. 889-895).

PEABODY MUSEUM, YALE UNIVERSITY.—*Science* states that Professor A. E. Verrill, who has held the chair of zoology at this university and the curatorship of the zoological department of this museum since 1864, will retire from active service at the close of the present year. Professor Charles Schuchert, curator of the geological collection and head of this museum, is spending the summer with two assistants in a geological excursion through New Jersey, Western Maryland, Western Tennessee and the Arbuckle Mountains of Oklahoma.

AMERICAN MUSEUM OF NATURAL HISTORY.—Hitherto on Mondays and Tuesdays in each week this museum has been reserved for members, for pupils of the public schools and for special students and artists, the public being admitted only on payment of a fee. In future the museum will be free to the public on all days of the week. It is hoped that members will raise no objection to this, since they have many other privileges, such as admission to the evening lectures and to various portions of the building not open to the public. They also receive the *Journal* and, on request, copies of all guide leaflets. An instructor, with functions similar to those of the docent at the fine art museum, Boston, has recently been appointed in the person of Mrs. Roesler. She will be prepared to receive and discourse to the guests of members, or will even take charge of their children for a few hours' instruction in the various exhibition halls.

LUND MUSEUM OF SOCIAL HISTORY.—On September 8th, 1907, the Kulturhistoriska museum of Lund will celebrate its twenty-fifth anniversary. It was, to be exact, on Midsummer Eve, 1882, that Dr. G. J. Karlin secured the first object in his collection and conceived the idea of illustrating the national life and history of civilisation in southern Sweden. The 8th of September in that year was the day on which he opened in Lund a small exhibition of the objects obtained by him during the vacation. Thence arose the museum which Dr. Karlin described at the meeting of the Museums Association in Aberdeen (*Museums Journal*, III, page 386-394, June, 1904). Since then the collections have increased, and it has been necessary to buy an adjacent plot, already containing certain buildings. These will be transformed and added to, so that, with the completed burgher house, in which the director himself resides, they will form a quadrangle, and afford space for the proper display of the exhibits. It may be mentioned that the house illustrating the buildings of the higher classes was the birth-place of P. H. Ling, the founder of the Swedish system of scientific gymnastics and body-training. Several pieces of furniture and other objects, formerly the personal property of Ling, have recently been presented by two of his lineal descendants, Miss Ling and Mrs. Dahl, in Stockholm, and it is proposed to fit up one of the rooms in the building as it might have appeared during Ling's life. The unpretentious house in which are the offices of the museum, together with its school of weaving and home-industries, was at one time the largest house in Lund and was used for social gatherings of the university. Although the grounds of the museum occupy but a small space in the centre of the town, they are laid out in a picturesque manner, so that each building has its appropriate surroundings. This most interesting museum is another example of what may be done by one man with small means, provided he has energy and enthusiasm.

OBITUARY.—Dr. Wilhelm Müller, curator of the mineralogical collections of the Technical Institute of Berlin, died on 2nd May.

MUSEUMS ASSOCIATION.

Treasurer :

Alderman W. H. BRITTAIN, J.P., F.R.G.S. (Sheffield).

Hon. Secretary and Editor :

E. HOWARTH, Museum and Art Gallery, Sheffield.

Hon. Assistant Secretary :

E. E. LOWE, Museum and Art Gallery, Plymouth.

The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of ros. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

THE MUSEUMS JOURNAL.

Vol. 7.

September, 1907.

No. 3.

Malmö Museum.

MOST people who arrive in Malmö are generally bent on immediately pursuing their way either across the Sound to Copenhagen or northwards to Stockholm. Few devote any time to the objects of interest in the town itself. Any, however, who should find themselves in this Swedish port might do worse than visit Malmö Museum. A few notes made in this museum, round which I had the pleasure of being shown by Intendent H. E. Larsson, may possibly be of interest.

The museum is a square building of red brick around an open quadrangle, with a tower at each corner and gables between the towers. The ground floor contains the porter's residence, the office of the Intendent, and the workrooms. The main entrance for the public leads on to the first floor, and here are the collections of geological and zoological objects. On the second floor the visitor passes through the pre-historic collections to those illustrating historic times, and more particularly the culture of Scania, and then to the general ethnographic exhibits. On the third floor are the collections illustrating pure and applied art. This order, it will be seen, is that of a gradually ascending scale, and it was originally intended that such an arrangement should be adhered to in the details of the geological and zoological collections. Owing, however, to the fact that the museum obtained as its conservator an enthusiastic and capable zoologist, Mr. O. Gylling, a larger amount of space than was originally contemplated has been devoted to groups of animals, and the logical arrangement has thus been somewhat disturbed.

Among the more notable of these animal groups is a diorama illustrating bird life on the sandy island of Mákläppen. This incidentally illustrates the protective colour shown by the birds. The names of the various birds exhibited in the diorama are given on an adjacent key-drawing. Another picturesque diorama illustrates life in Lapland during the winter night. Numerous smaller groups are placed in the cases of the zoological collection, not as a rule in independent cases. In constructing these groups Mr. Gylling has not only paid attention to the natural surroundings of the animals, but has generally endeavoured to associate them with their prey, or to illustrate various accidents of their lives. Undoubtedly the visitor learns in this way more of the natural history of the creatures than might be shown by groups of a more peaceful nature. At the same time these arrangements bring home to one perhaps too forcibly "Nature red in tooth and claw with rapine," and suggest that the skilful conservator has an undue taste for horrors. Here are a few of these groups :—

1. Animal life in Lapland is represented by a family of foxes, of which two cubs are seen snarling over a dead cock with its feathers torn out and the raw half-eaten flesh exposed.
2. A specimen of the porbeagle (*Lamna cornubica*) is shown stranded on the shore. Two crows have already begun to peck at it, while a seagull hard by is shrieking for its mates to come and join the feast.
3. A marten has attacked the nest of a capercaillie and, having killed the mother, is now eating the eggs.
4. A common fox is shown caught in a trap and howling with rage and pain.
5. A fine golden eagle (*Aquila chrysaëtus*) has killed and carried home a capercaillie (*Tetrao urogallus*).
6. An Arctic wolf (*Canis occidentalis* var. *arctica*) is seen eating an Arctic hare, whose bloody fur is strewn about the ground.

Ruskin once objected to the exhibition of certain objects in museums as "guts and other charnel house stuff." One wonders what scathing phrase he would have applied to Mr. Gylling's otherwise excellent preparations.

Among the systematic zoological collections possessed by this museum is particularly to be noticed the large cabinet of Swedish insects formed by Dr. H. D. J. Wallengren, and containing the originals of his descriptions.

The geological collection is noticeably poor, even Scania itself having furnished a very small number of fossils. Presumably the competition of Lund University is too great. There is however one special collection of importance, namely that brought by Baron Erland Nordenskiöld from the caves of Ultima Esperanza, South Patagonia. These caves were first discovered by Dr. Otto Nordenskiöld, but were more systematically explored during the subsequent expedition by his cousin. Here are to be seen the sub-fossil remains of many animals, including the extinct *Glossotherium Darwini* and *Onohippidium Saldiasi*, as well as of the still living *Auchenia huanaco* (guanaco), *Auchenia lama* (lama), *Macrauchenia* sp., *Cervus chilensis*, *Felis onca* (jaguar), *Homo sapiens*, various birds, mussel shells, other invertebrates and plants. As in the case of the well-known *Mylodon*, or *Grypotherium Darwini*, from the same caves, portions of the skin and tissues and the excrement of the extinct animals have been found, enabling an exact idea to be formed of their appearance and the nature of their food. Reconstructions of the animals in their native haunts, based on this evidence, are shown in a large coloured diagram above the case. Those who desire a brief general account of the caves and the fauna found therein will find it, together with illustrations on pages 174-184 of Sir Ray Lankester's fascinating "Extinct Animals."

Baron Erland Nordenskiöld has also handed over to the ethnographical collection of this museum an interesting series of objects illustrating the life of the Chorotes, an Indian tribe who live in Gran Chaco in Bolivia. These are

accompanied by photographs from the camera of Count Eric von Rosen, who was one of Baron Nordenskiöld's companions on his expedition. Reference may here be made by those interested to a little book by Baron Nordenskiöld entitled "*Från Högfjäll och Urskogar: Stämningsbilder från Anderna och Chaco*," Stockholm, 1903. It should be explained that Malmö Museum contributed largely to the cost of the expedition.

The galleries containing illustrations of Scanian culture and the history and antiquities of the district naturally contain many objects of considerable interest; but for a general view of these subjects the visitor will probably do better to visit the Kulturhistoriska Museum at Lund.

It is proposed during the present autumn to hold a temporary exhibition in this museum, illustrating the history of Malmö and its neighbourhood. In addition to the various antiquities already collected in the museum, there will be placed on exhibition a series of old maps, showing the gradual changes in the development of the town, together with pictures of former buildings and portraits of past celebrities connected with the place.

F.A.B.

The British Association, 1907.

FOR the first time in its history Leicester was visited this year by the British Association, and judging by the excellence of the arrangements and the cordiality of the reception, the members of the Association have no cause to regret the result of breaking new ground. The attendance was also good, considering all the circumstances, the number of members and associates who entered their names being 1,640. This has often been exceeded at previous meetings in some other places, but there seems no doubt that the change in the time of meeting from September to the beginning of August has not met the convenience of visitors, for in the two years this change has been in operation there has been a conspicuous diminution in the attendance.

The address of the president, Sir David Gill, was naturally concerned with the subject of astronomy, to which his life has been devoted, and he dealt with the profound problems of the universe with an ease and clearness that seemed to convey to the audience a definite impression of the principles underlying those problems.

Of the addresses by the presidents of sections those by Prof. J. W. Gregory to the geological section and by Dr. W. E. Hoyle have the most interest for curators. The former dealt with geological work generally, while Dr. Hoyle limited himself to the intricate question of the classification of the cephalopoda, of which he has made a special study. He reviewed the labours of other workers in the same field and then with his usual logical incisiveness demonstrated the proper lines to go upon in studying and arranging this group of animals. The printed copy of his address will be exceedingly helpful in museum work. Broadly interesting too, was the presidential address by D. G. Hogarth to the anthropological section, with its suggestive knowledge of how to regard this fascinating science.

Sir Philip Magnus in addressing the educational science section was somewhat severe on the artificial teaching in elementary schools, which he said we cannot be surprised to find has failed in its results. He urged a more practical system to enable the children to acquire real knowledge, such as will best tend to develop their intellectual powers and special gifts. The following paragraph from his address is not without significance to the work of museums in that direction. "If we are to correct the errors into which we have drifted, if we are to avert the consequences that must overtake us through having equipped our children for their life-struggle with implements unfitted for their use, we must consider afresh the fundamental ideas on which a system of elementary education should be based. Instead of excluding the child from contact with the outer world we must bring him into close relationship with his surroundings. It was given to man to have

dominion over all other created things, but he must first know them. It is in early years that such knowledge is most rapidly acquired and it is in gaining it that the child's intellectual activities are most surely quickened."

The papers read in the various sections were chiefly concerned with scientific details and do not therefore call for special comment here. One of them, as dealing with a branch of work now being developed in some museums, was the paper on "The rise and recognition of economic biology." A joint meeting of the sections of zoology, botany and educational science was held to discuss "The teaching of biology in schools," which it is hoped will bring into view some rational system of dealing with a subject that has been worse than neglected, for it has been ridiculously perverted from its true aims.

The conference of delegates usually produces subjects that are of general interest, without always giving them that exhaustive and profound treatment they deserve. This year there were practically only two subjects discussed. One of these was on the "Advancement of geographical science by local scientific societies," introduced in a lengthy discourse by H. J. Mackinder, M.A. He dealt with local geography in relation to everything that concerns the physical, biological and social features of a district. These would comprise the association of plants, lines of climatic conditions, drainage, economics, distribution of animals, and other subjects, which should all be co-related to the local geography by being mapped out. On such a map basis the physical, geological, and biological characters of a district could be set forth. This would give excellent material for school children's education, and might be made available by having the maps and plans set out in a public museum, according to an ingenious system which he described. He also pointed out the importance of a photographic survey, which was further elaborated in a paper by Rev. R. Ashington Bullen, and after some discussion the conference passed the following resolution:—
"That it is advisable to obtain information as to the present

state of things in Britain in connection with photographic survey work ; to publish instructions or give advice for the execution of a scientific photographic survey ; and to endeavour to found or promote a photographic work of the town and district in which the British Association holds its meetings annually." It was agreed to send the resolution to the committee of recommendations.

In the paper by Mr. Carlton Rea he emphasised the importance of the study of Fungi, pointing out the many economic aspects of the subject, especially in relation to horticulture and agriculture. He urged the desirability of having the fungi of each district shown by means of coloured drawings or photographs, as it is not possible to preserve the actual specimens satisfactorily.

Ceramic Collections for Public Museums.

By A. J. CADDIE.

[Read at the Dundee Conference, 1907.]

SECTION I.—STAFFORDSHIRE EARTHENWARE.

THE collection of specimens of the ceramic art for public museums has of late years developed very considerably, particularly so since the Board of Education sanctioned a grant in aid which reaches a maximum of 50 per cent. on the purchase price. That such collections systematically organized are of educational value cannot be disputed, but it is necessary to exercise great care in the selection of suitable objects having a direct bearing upon, and illustrating the development of the fictile art ; and the avoidance of " faked " and meaningless objects.

In this paper I offer a few suggestions as to what points should be observed in acquiring specimens of Staffordshire earthenware that shall fully illustrate the most important steps in the evolution of this great industry. I am limiting myself altogether to the productions of Staffordshire ware as time will not permit me to deal with the whole field of ceramics in one paper.

The regular practice of the potter's art did not commence in North Staffordshire until the 17th century, although cinerary urns made by hand during the Celtic period, and prior to the introduction in this district of the potters wheel, and Romano-British pottery "thrown," and decorated in a very crude manner have been found in the neighbourhood, but no pottery such as we understand the term to-day was made.

In his "Natural History of Staffordshire," published in 1686, Dr. Plot mentions that on his visit to Burslem some 15 years previously were made "butter pots." These pots tall and cylindrical in shape were made in a very coarse manner, to weigh not more than six pounds and yet to contain at least 14 pounds of butter.

One of the most interesting forms of decoration attempted by our potter in the genesis of his art was what is now known as "Slip-decorated ware." This class of decoration was made to assume many varieties of style, and genuine specimens are eagerly sought to-day. There is some doubt as to whether slip-decoration originated in this district as several fine dated specimens made at Wrotham in Kent are preserved in various public museums. But it is certain that in the latter portion of the 17th century over a dozen potters in Burslem and the neighbourhood were making it, the most important being Thomas Toft, who was possibly the first Staffordshire potter to mark his productions. Many of his large dishes bear his name and the date of manufacture. The coarse yellow and red marl of the district was used for the body, and on the inside a thin wash of yellow clay was applied, and on this the decoration run. In applying the slip (which is clay in the liquid state) a can, having apertures of several sizes for the insertion of a tube or quill, was filled with the liquid. On the top of the can was a small hole by which the workman regulated the admission of air with his thumb, and thereby governed the running of the slip, which he poured on the pot, evolving his pattern as he went along. Without preparation of design, crude representation of trees, human forms, heraldic animals,

&c., were produced ; the result being a quaintness in design and harmony of colour that cannot be found in any other specimens of the fictile art. The slip used was of a variety of colours, and after decoration the piece was glazed with galena, or lead ore, finely pulverised and dusted on through a fine hair cloth bag while the ware was in a soft state. During firing the lead ore melted, and flowed over the piece, making a somewhat heavy glaze. Another style of slip decoration was known as " marbled " or " combed " ware. The method of producing this was as follows:—When the pot was still in a soft state the workman poured lines of brownish coloured slip on to it, and then, with a tool something like a comb, he marked it in different directions giving an effect like the veining of marble. Most of the common household utensils were decorated in this way. In addition to Thomas Toft the potters at this period included Ralph Toft, Thomas Sans, Ralph Simpson, W. Rich, and T. Johnson.

The making of " Tygs " or drinking vessels was also an interesting feature of the 17th century. These were made with several handles, for one had, as a rule, to serve for a party of three or four convivial spirits. A handle was thus always near whoever desired a drink. On many of the cups little dots were made to show how far each might drink. These utensils were of very coarse clay, glazed with galena, and sometimes decorated with slip and by the application of ornaments of lighter coloured clay. Our early potters had no illustrated books or pictures to help them in their designs. They were far removed from any large towns where the influence of more artistic surroundings might have assisted them. Whatever progress they made was entirely due to their own ingenuity and skill. Genuine specimens of Staffordshire slip-decorated ware are extremely rare, and as a consequence very costly. To imitate them is one of the simplest operations, and some years ago a clever though unscrupulous modeller in the Potteries produced a great number of specimens which deceived some of the most noted collectors. These still come into the market occasionally. There is also at the

present time a very large quantity of so-called 17th century slipware being sold, which is made at various places in the country ; but these imitations are so bad that they should not deceive the careful buyer. They are evidently made by men who have no knowledge of the simplicity of the early potter in his manufacture, and overlook the fact that the very quaintness of the drawing and modelling of the figures, &c., together with the crude method of glazing is typical of an art in its infancy ; and bring to bear more up-to-date methods of production that were not dreamt of in the early days. It is not safe to buy any slip-decorated ware unless a good account of its history is forthcoming, with plenty of proof of its genuineness.

Next in chronological order comes that beautiful class of red pottery known as "Elers ware." How much of it was made by Elers, and how much by his immediate successors is doubtful. Undoubted specimens of Elers are few and far between, and much that is attributed to him is of a later date, when mechanical methods of production played so important a part. There seems to be no doubt that Elers raised the quality of potting very much in Staffordshire, for he must have possessed a knowledge of the chemistry of pottery acquired in his own country where salt-glazed ware was produced of a high quality. He was enabled to purify and mix his clays in a manner unknown to our 17th century potter as can readily be seen on comparing his productions with the slip ware. The fact that the red ware of Elers is so much in advance of slip-decorated pottery, and that there are no specimens of an intermediate stage showing gradual development, seems to point very decidedly to the fact that he introduced new methods of production and I think it is safe to give him credit for the introduction, not only of this particular variety, but also of the salt-glazed pottery, of which more presently.

The surface of Elers pottery is perfectly smooth and soft to the touch and very similar to that produced in Japan. His method of decoration was entirely different to anything that had been practised in the district before, for he stuck

small pieces of clay on the body of his pot, and with a sharp metal die stamped a pattern very much in the manner of using a seal and sealing-wax. The rough edges of clay were removed from the outline of the flowers, leaves, sprigs, &c., and the workman's tool marks made during this operation can be distinctly seen on the piece. At this period (late 17th century) quaint handles and spouts were made by hand, and collectors often use this fact in identifying genuine Elers, as much of the so-called Elers has spouts and handles which have been made in a mould at a much later period, probably as late as the middle of the 18th century ; in fact I am inclined to believe that much of it was made by Twyford, and it may be that the great Wedgwood produced some of the finest examples of the later period.

Soon after the advent of Elers the Staffordshire potters were producing large quantities of salt-glazed pottery of varying quality ; the finest of the early specimens having relief decorations. Some specimens bear great resemblance in the form of decoration to Elers ; but instead of the floral relief being stamped on in the manner described, it was first made in a mould and then applied whilst in a soft state. (In the Stoke Museum is a rare example of a salt-glazed tea-poy, having crowns stamped on exactly as Elers was known to have worked.)

Perhaps one of the finest examples of this applied decoration is a pint mug. It is $5\frac{1}{4}$ inches high. The body is of drab coloured stoneware, the handles and decoration being of white clay. The raised design on this piece is unusually high and sharp, and has been most carefully applied by a very skilful potter. Unlike the liquid glaze, salt-glaze did not in any way reduce the sharpness of the decoration for it was deposited on the ware in a vaporous state during the process of firing, and there was no undue accumulation in the interstices. The method of glazing with salt was extremely simple. When the firing of the oven was at its height, the potter, standing on a scaffold-like arrangement threw in the salt, which was at once decomposed. The soda from it joined the silica of the clay body, forming silicate of soda or hard glass, which was deposited

on the surface of the ware. I would call your attention to the curious little granulations which always appear on salt-glaze. It has been very aptly likened to orange peel, and can easily be recognised by this peculiarity. In addition to the raised ornaments already described there were other methods of decoration practised. One of the earliest forms was "scratched ware," this effect being obtained by scratching a rough floral pattern on the pot when still in a soft state, and then dusting zaffre into the lines so made. When this was fired the zaffre came out greyish blue, and did not merely confine itself to the pattern but ran to some extent over the neighbouring surface giving a very delicate colour effect. Enamelled salt-glaze is perhaps the variety most sought by the collector to-day, and a good example of this—say a perfect tea-pot—is worth anything over £10. Here is where the crafty dealer comes in again, and one has to watch his tricks very carefully. Plenty of ordinary common white salt-glaze is to be obtained, and this he gets, and has painted (or enamelled as it is usually called) and put on the market as genuine. With a little bit of experience most of these frauds can be detected, the colours used being duller and very different to those of the old potter. The fact must not be lost sight of that salt-glaze of the later period (and it was being manufactured until well into the 19th century) was often very bad and certainly quite unsuitable for collecting. In acquiring specimens it must be recollected that you want to illustrate the following varieties :—Drab coloured pieces with the handle and spouts, and any decorations there may be in relief, of white clay; these decorations having first been made in a mould and then applied. "Scratched" ware; "Enamelled," or painted pieces; and specimens that have been made in a mould with their decoration complete. This last variety is the best of the early 19th century specimens.

In the building up of a ceramic collection for public museums it is necessary to have specimens of all the varieties described up to now. Without them it is quite impossible to convey any idea of the evolution of the potter's art. Each variety marks a very distinct advance, and all of them, as

we shall see later on, created a lasting influence on the industry. There are methods in use to-day that only differ very slightly from those prevailing in the 17th century. Take the modern hearth tile for example. You will find in many instances that in addition to the colouring on the surface there are conventional decorations in relief which in many cases are produced by running slip (sometimes coloured) over the outline of a pattern already marked out, thus giving a relief decoration, far in advance artistically of the slip ware, but still obtained in the same manner. It is also interesting to note that the beautiful *pâte sur pâte* decoration which Solon has made so famous at Messrs. Minton's, is obtained by painting layer upon layer of white slip and gradually modelling up the figures, &c. Then again Wedgwood in the production of his jasper ware in the middle of the 18th century applied his relief decorations (figures, etc.) on cameos and vases just in the same way as the salt-glaze potter worked. That is to say each ornament was made in a separate mould and applied by hand. Precisely the same moulds and methods are in use at Wedgwood's and other factories at the present time.

A very quaint and interesting variety of coloured earthenware was manufactured in the Potteries in the middle of the second half of the 18th century. It is known as "Cauliflower," "Agate" (the outcome of the marbling or combing of the slip decorated period) and "Tortoise-shell" ware. Several potters most certainly manufactured this class and it is to my mind a great mistake to attribute it all to Whieldon as is often done. Much of it is far too poor for that admirable potter, and some has a mechanical finish which points to the date of its manufacture being later than Whieldon.

Beautiful bright green and yellow glazes were freely used for the cauliflower and pineapple class, and the tortoise-shell effect was obtained by the application of manganese to the dry clay. "Agate" ware differed from the others in the nature of its colouring, for instead of coloured glazes being applied to the surface of the objects, several thin

layers of red and yellow clay were laid alternately together and then a twist given to them making a sort of marble veining. The piece was then moulded, and after firing and glazing became a very dainty pot. Wedgwood carried this method to a very high artistic level, and some of the specimens produced in this manner are equal to anything he ever made. Knife and fork hafts were also made in the same way for the Sheffield cutlers.

Some two years ago there was discovered at the Wedgwood works a large number of early moulds, trial pieces, &c., made by Josiah Wedgwood, and these have thrown a new light on much of Wedgwood's early work. Fortunately we are now able to state with certainty that Josiah Wedgwood made both "pineapple" and "cauliflower" ware, for amongst a large number of his earliest moulds, &c., have been found a variety of patterns in pitcher of these and similar productions. That they are early patterns is evidenced by the fact that all are salt-glazed. Many of the pieces made from these patterns have up to now been ascribed to Whieldon, but I think there is at last sufficient evidence to give their maker's name as Wedgwood. Apart from the fact that moulds and patterns had turned up, there is a quality of finish about the finest specimens of this ware that somehow stamps it as Wedgwood's. He insisted on careful finish, neat handles and spouts in keeping with the rest of the pot, sharpness of decoration in relief, and perfection of form. In fact there is nothing suggesting crudeness about them, but rather are they the productions of a skilled potter of a somewhat later period than Whieldon. Many Staffordshire potters copied this popular class of ware with varying degrees of success—this, no doubt, accounting for the fact that one constantly meets with very inferior examples hardly worth the trouble of collecting. (See *Burlington Magazine*, January, 1906.)

Towards the end of the 18th century the number of manufacturers in North Staffordshire had grown considerable. From a crude rule-of-thumb method of production, had developed one full of artistic and scientific skill.

Individual effort was proceeding towards this development in every way, when the required master hand came forth. There was born in the year 1730 our most famous potter, Josiah Wedgwood, who, as he grew older, gathered in his mind all the efforts of his predecessors and contemporaries, and produced, profiting by their experiences, trials, failings and successes, the most beautiful pottery ever made in Staffordshire. No ceramic collection can be anything like complete without examples of his art, and, so great was the variety of his wares that a complete collection of every class he manufactured would serve to illustrate the art of the Staffordshire potter very fully up to the time of the introduction of porcelain making. Wedgwood worked with several partners, including Whieldon up to the year 1759, when in that year he erected the famous works which still bear his name at Etruria. Before Wedgwood's time a potter might be called upon to perform any duty on the works from making fires for the oven to packing the ware ; but Wedgwood altered this arrangement, and on his factory each workman had his specially allotted portion and class of work to do ; so that each man gradually became skilled in some particular branch of the art. Wedgwood had many influential friends moving in the highest society, and was thereby brought in touch, at the houses he visited, with many historic collections of art which suggested to his active mind the possibility of reproducing them in pottery. Through his friendship with Sir W. Hamilton he had an opportunity of examining and copying many of the most wonderful specimens of Etruscan pottery which that gentleman had collected. The influence of this early pottery is clearly seen on many of Wedgwood's productions, particularly on the black variety, with classical subjects painted in red. As we have already said, Wedgwood produced all classes of pottery and naturally had many imitators and copyists. But in addition to these pirates there was working in his immediate neighbourhood quite a number of excellent potters, who were not merely imitators, and whose productions should find a place in all public collections. Perhaps the most important was

William Adams who had served his apprenticeship with Wedgwood, and whose Jasper ware equals that of the master's. The texture of the body is perfect and the colour excellent, while the application of the subjects in relief leaves nothing to desire. Adams' 18th century jasper is to-day fetching as much money as Wedgwood's, and no opportunity should be allowed to go by of obtaining specimens. As a rule his ware was marked with the name "Adams" impressed. For a full account of his life and work I would recommend you to read Turner's "William Adams."

Specimens of pottery by the following contemporaries should also be acquired :—Warburton's cream-coloured ware, Samuel Hollin's red ware, John Turner's stone ware and jasper, Humphrey Palmer's black basalt ware, Neal and Palmer's black basalt ware, Elijah Mayer's black basalt, cream ware, and shining black tea ware.

It is wise to purchase only marked pieces of all these potters as much that is of a later period is often ascribed to them. Not that the mark is to be altogether relied upon, for the forger does not hesitate to add this to his productions. In fact the mark should be the last thing to examine. On inspecting a piece with a view to purchase we should quite satisfy ourselves as to the quality of the body, and the finish, for it must be remembered that all the specimens by the great potters worth collecting are of excellent quality, and, even to the most minute detail of finish, perfect ; whilst the forger has great difficulty in accomplishing this. All old jasper and black basalt has a beautiful soft feel on the surface, and the texture of the body is remarkably fine. In modern productions of these varieties you will find on feeling at the surface a very pronounced roughness. New basalt pieces are often coated with a layer of blackened oil or other mixture, to artificially give the smoothness they otherwise lack, and this can easily be detected by sharply rubbing the surface. I have frequently had pieces offered that have been blackleaded, but a wet finger has soon exposed that "fake."

John Turner who, about the middle of the 18th century had works in Stoke and later removed to Longton, was certainly one of the greatest of the Staffordshire potters, contemporary with Josiah Wedgwood. Particularly is he noted for the beautiful cream-coloured stone ware and jasper; specimens of which are to be met with in most of the important collections. The stone ware is of excellent quality and in its way almost equals Wedgwood's coloured jasper. The decorations on it are in relief, and applied by hand after having been previously made in moulds. Dishes, jugs, wine-coolers, and bulb-pots were produced in this material, and he must have had a very large sale for them judging by the great quantity to be found at the present time. As a rule Turner marked his pottery with the name impressed, but in this respect he was not so regular as Wedgwood, for one frequently meets with pieces undoubtedly by him which bear no mark whatever. Turner died in 1786, and was succeeded by his two sons. Under their management the output from the works increased very considerably, as in addition to the manufacture of stone ware and jasper they developed a good ordinary earthenware business, and also produced much black basalt ware in imitation of Wedgwood.

In the latter part of the 18th century a most important development took place which quite revolutionised the art of decorating pottery, with the introduction of a method of transferring prints from copper plates on to the ware. In its early stages most of the printing was carried out by Saddle of Liverpool; the Staffordshire potters sending their ware there for that purpose. This early printing was done on the glaze in black colour, and at that period did not alarm the painters engaged in hand decoration; but when printing in blue was introduced they began to think that their occupation was in a precarious state, and quite a storm arose. It is said that one body of men waited upon Wedgwood and complained of this interference with their trade and begged him to try and put a stop to it. He then promised that no blue printing should be done on his works during his life-

time. However, this did not in any way injure the rapid spread of the new practice, and in a short time most of the manufacturers adopted it. Josiah Spode, the founder of one of the greatest and most important factories in the Potteries, although not the first to introduce blue printing into North Staffordshire, did very much for its improvement, and specimens by him are to-day looked upon as the finest examples of this class of decoration. So well cut were his copper plates from which the transfers were taken that many are at the present time being used by his successors. Spode marked his ware with the name impressed, and also on the printed ware the name blue-printed. Other makers of blue printed ware whose productions are worth collecting are—Adams, Rogers, Stevenson, Tams, Davenport, Minton (the founder of this firm was a potters' engraver), Mayer, and early 19th century Wedgwood ware produced after the great potter's death. To meet the demand which has grown enormously of late much of this blue-printed ware is now being manufactured, and it is necessary to exercise care and judgment in its purchase. As far as I know no public museum has anything like a representative collection, although we at Stoke have, during the past few years, been doing our best to obtain suitable museum specimens, and have been fairly successful in our search. It is going up in price very rapidly, especially since the American collectors have been hunting it, and a good piece, say a meat dish, is worth now about 30s. to £2 in England. We have at Stoke perhaps one of the rarest examples of the earliest blue-printed. It is a dessert basket with stand, and has been engraved in pure line, a method that is not now practiced. You will find on examining this ware that the shading is all done with a fine punch, and not engraved in line. Our specimen is figured in Burton's "English Earthenware." In all collections of pottery, printed ware should find a place, for it is a most important feature of pottery manufacture, and has a great bearing on the growth of the industry. Most of the ordinary table ware of to-day is decorated by this cheap method in some form or other. It may be that

the pattern is altogether finished by printing ; or the outline only printed and then filled in by hand, a cheap process that is more often than not carried on by girls. Then of late years a new method of transfer printing in all colours has been brought to perfection, and from a paper transfer, such as children use for amusement, decoration can be obtained in an extremely cheap manner that is so near hand-painting in appearance that it will easily deceive the unwary buyer. I should like to say here that the latest " fake " of the unscrupulous dealer is to get good early white china plates and dishes bearing a well-known mark, such as Dresden, Sèvres, Chelsea, &c., and then by this transfer method place a group of figures or landscape on the pieces and passing them off as genuine antique hand-painted porcelain.

Everybody with the craze for pottery collecting seems to bow down and worship Staffordshire figures, but it is questionable whether this branch should be encouraged to any extent in a museum, especially figures made after the 18th century. With few exceptions these figures have no place in such a collection and serve no useful purpose. There is at present on loan to the Salford Museum a most remarkable exhibition of this class of the potter's art, and the owners (Dr. Sidebotham and Mr. Falkner) are to be congratulated on their successful hunts for really good typical examples that are far in advance of those usually met with in such collections. The illustrated catalogue is published at 3d. and is well worth obtaining as a guide to the collection of correct samples.

The most noted makers of figures worth collecting for a museum are—Wedgwood, Voyez, Ralph Wood (father and son), Walton, Salt, Neale & Co., Enoch Wood, and Wood and Cauldwell. After these came a host of makers who produced some dreadful results, having absolutely nothing to recommend them. They are bad in modelling, too gaudy in colour, and the general finish is typical of a careless workman's products. Most of the modern imitations are of the same poor quality. They are made in thousands, and sold

at fancy prices. In one shop alone I noticed a short while ago quite a hundred of these frauds.

[My best thanks are due to the Board of Education, Dr. Sidebotham, Mr. Falkner, and Mr. T. W. I. Adams, for their kindness in lending me the lantern slides with which this paper was illustrated.—A.J.C.]

DISCUSSION.

Mr. MACLAUCHLAN : " There is a general desire amongst those present to acquire specimens such as Mr. Caddie spoke of and has shown us, which, I think, he said only cost a few shillings. Perhaps, Mr. Caddie may say where these can be had."

Mr. W. W. WATTS : " I notice that the title of Mr. Caddie's paper is ' The Method of collecting and exhibiting English Pottery and Porcelain.' It follows obviously, from what he has said, that the first thing to be thought of is, what period of English pottery we are going to collect or represent ? It is not an uncommon thing in provincial museums to find a collection of English pottery which has apparently no limit, and I think it is of very considerable account to make a calculation of our means before we begin to collect, and decide which we are to represent. Mr. Caddie wisely limited his remarks to English earthenware, and that leads us to another question of equal importance, and that is, that persons collecting must invariably attain some sort of knowledge of the subject which they are to follow ; they must know what to get ; and must know also what to avoid. Every piece or pattern has something in it to commend it. Most of us are agreed as to the hideous nature of the Staffordshire figures, though they have some redeeming features—they tell us something of the costume of the time. One might, in getting together a collection, get the work of different factories and different makers, and also illustrate, as far as our means will allow, the methods of production. These, I think, should be the objects in getting together a collection of English earthenware. Forgeries were very obvious when one thinks of the hurry with which they were produced. I believe there were such things as modern slip ware, which were very difficult to distinguish from the original ware. One aspect which has not been touched on is to study the shapes, the evolution of shapes of the objects which we are trying to

collect. For instance, we had many illustrations of teapots, but a teapot of the 19th century is an absolutely different thing from a teapot of 100 years later, and that is a fairly sure and safe guide. And then, again, we should try to remember that, in collecting, we ought not to go and buy an object illustrating a social custom that has entirely passed out. It is rather an important point in collecting not simply to look at the object from its artistic point of view. Country museums should make it their chief aim to bring before their visitors such pieces of English earthenware and put before them the best from the best factories."

Mr. CADDIE stated that he could obtain four plates and a transfer print, illustrating the process of printing on pottery, for any museum at a cost of six shillings.

Museum Publications.

British Museum (Natural History).

SPECIAL GUIDES, No. 3. Memorials of Linnaeus: A Collection of Portraits, Manuscripts, Specimens, and Books exhibited to commemorate the Bi-centenary of his birth. London, 1907. Price 3d.

This topical and temporary exhibition is an exceedingly interesting one. The British museum itself preserves many important memorials of Linnæus, whether in the department of manuscripts, from which a selection has been made by the keeper, Dr. G. F. Warner, or in the botanical department, whose keeper, Dr. A. B. Rendle, has drawn up this Guide and is mainly responsible for the arrangement of the exhibition, as well as in the department of prints and drawings which has furnished a couple of portraits; but in addition to these treasures, Sir Ray Lankester has induced the president and council of the Linnean Society to lend several specimens and books from the collection of Linnæus himself. Dr. Carruthers, a former keeper of botany, whose studies on the portraits of Linnæus are well-known, has presented a series of photographs and other reproductions here exhibited. The Guide itself contains as frontispiece a reproduction of the portrait by P. Krafft now belonging to

the Royal Swedish Academy of Sciences, Stockholm, and a photographic reproduction of the portrait of Linnæus, in Lapland dress, painted by M. Hoffmann. Concerning this portrait the Guide says—"The left (hand) holds an oval object, which is apparently a press for drying plants." This guess is perhaps a natural one ; but as a matter of fact the object has been clearly recognised as a Lapp divining drum. It will be observed that on the skin covering the drum are drawn a number of objects ; a small stone or something of the kind was placed on the skin, which was then set in vibration, and the stone was thus moved into the neighbourhood of one or other of these figures and on this the divination was based.

Perhaps the most interesting object in the collection is the original specimen of *Linnaea borealis* collected by Linnæus at Lycksele in Lapland, May 29, 1732, and sent in 1735 to his friend Dr. Gronovius, of Leyden, with the suggestion that it should bear his name. This then, which ranks as the type-specimen of the species, is from the herbarium of Gronovius, which was bought by Sir Joseph Banks in 1794, and thus came into the present botanical department.

We notice here also the letter from Boerhaave introducing Linnæus to Sir Hans Sloane. This letter was quoted in the address sent by the trustees of the British museum to the Swedish Academy of Sciences (See *Museums Journal*, Vol vi., pp. 416-417, June, 1907). The quotation there given was apparently taken from the letter as printed in Pulteney's work on Linnæus. The actual manuscript, as quoted in the Guide, shows that the letter begins "Linnæus has Tibi tradit, unice dignus Te videre, dignus a Te videri : qui vos simul videt, cernet hominum par, cui aliud simile orbis vix dabit."

The museum curator will perhaps be specially interested in the plants from the herbarium of Linnæus, illustrating his method of conservation, also in the fishes from his collection preserved in the form of dried skins mounted on sheets of paper in the same way as the plants. In the case

of the plants Linnæus himself says that the adhesive used was isinglass, and this it is probable was also used for the fish skins.

Those who have the opportunity of visiting this exhibition are recommended to avail themselves of it, while those who have not will be glad to purchase the interesting little Guide.

VOLUME IV. OF THE MONOGRAPH OF THE CULICIDÆ, OR MOSQUITOES.

Mainly compiled from collections received at the British Museum (Natural History) from various parts of the world. By Fred. V. Theobald, M.A. Pp. xix., 639; 16 plates and 297 text-figures, London, 1907. 8vo. Published by the Trustees of the British Museum. Price £1 12s. 6d.

The present volume is the second one supplementary to Mr. Theobald's original work on the *Culicidæ*, in two volumes, with an atlas of plates, published by the trustees in 1901, in connection with the investigation into the cause of Malaria conducted by the Colonial Office and the Royal Society. It includes 160 species described since 1903, when the first supplementary volume (Vol III) went to press. About 12,000 specimens have been received in the museum since 1903, about half of which have been examined for report in the present volume.

Newcastle.

TRANSACTIONS OF THE NATURAL HISTORY SOCIETY OF NORTHUMBERLAND, DURHAM, AND NEWCASTLE-UPON-TYNE.

Dr. G. S. Brady gives a list of 12 species of Crustacea, found in a recently formed salt-water pond at Amble. This list includes one genus and two species new to science—*Proteocypris salina* and *Ectinosoma brumea*. These are figured on the two plates which illustrate the paper. A paper on the Spiders of the Tigue Valley is contributed by Mr A Randell Jackson. The writer records 259 species for Tynedale, 286 for Northumberland and Durham: of these, 284 occur in Northumberland. A list is given of species found in Cumberland and the lake district but not in the north-east counties. This brings the total of the four northern counties to 322. In the Hexham district, five

species were discovered new to Britain ; of these, three were new to science. The list is furnished with three appendices, one on beetles found by Mr. Hardy in Northumberland and Berwickshire, a second on species found by Mr. Hull, but not by the writer in Northumberland and Durham ; a third on spiders found in Cumberland and Westmorland but not in Northumberland and Durham. Mr. Richard S. Bagnall gives some notes on new and rare beetles. The species treated of are *Triplax bicolor*, Gyll. ; *Agathidium badium*, Er. (both new to Britain) ; *Epurdea angustula*, Er. and *Acrulta inflata*, Gyll. Prof. T. Hudson Beare adds a note on European species of *Triplax*, and a description of those that are found in Great Britain. The Rev. Arthur Watts gives as his opening address to the Tyne-side Naturalists a description of twelve borings made in Derwenthaughland in Derwent Gut, and the descriptions to be drawn from the facts. He concludes (1) that a glacial age existed since the Derwent began its present course ; (2) that the north-east of England has sunk at least 150 feet since the glacial age declined ; (3) that the Derwent was contemporary with the Teine, and that both probably belong to the group of which Dunmail Raise is an example. Dr. D. Woolacott gives a paper (illustrated) on the landslip at Clarheugh ; Miss Marie V. Lebour writes on the larval Trematodes of the Northumberland coast. The latter paper is illustrated by five plates. Mr. W. E. Beck reports on the six field meetings of the Natural History Society and gives lists of birds and plants collected or observed. The annual reports of the Society for 1904-5 and 1905-6, have already been noticed in this Journal (Vol. v., page 372 ; Vol. vi., page 351).

Museumskunde.

Part 2 (Vol. III.) begins with a short critique—or rather vindication—of Bode's memoir on the Berlin museums by Dr. Koetschau. The writer shews that Bode's critics have gone astray through their failure to recognise the difference between a museum of national art and a museum of national antiquities. Quite different methods have

to be adopted in illustrating the evolution of art in any country, and setting forth the general history and progress of the people. Dr. Koetschau directs the attention of the critics to Dr. Lauffer's articles in the last and present number of "Museumskunde." Dr. Pazaurek contributes a short article on the Royal Picture gallery at Stuttgart, an institution which has made remarkable progress under the directorate of Dr. Konrad von Lange. Special attention has been paid to the modern pictures, and in arranging these, Dr. von Lange has not cramped himself by strict adherence to local grouping or classification by schools, but has been guided by the affinities of the pictures themselves, their congruity in colour, shading and general feeling. The methods used are largely those employed by Prof. Bernhard Pankok at the Dresden Art Exhibition. The usual "dos à dos" lounges have been partly re-placed by a table-desk, on which are placed art journals and other art publications. Heer E. W. Moes briefly describes the arrangement of the drawings in the Amsterdam collection of engravings. After glancing at the usual methods of arranging prints—alphabetical, chronological, &c.—and noting their defects, the writer explains his own plan. It is a modification of the chronological system, and one that avoids the difficulties usually experienced in carrying it out. A year is fixed for each artist midway between his twentieth year and his death, and the portfolio that contains his works bears that year as a number. The portfolios constituting the collection are then arranged according to the numbers thus obtained. Thus the works of Goltzius (b. 1558, d. 1616) would be in a portfolio marked 1597—the middle number between 1578 and 1616. Herr Philip Lehrs gives an appreciative description (illustrated by eight cuts) of the groups of animals exhibited by Dr. Lehmann at the Dresden Exhibition of last year. The writer is warm in his praise of them, especially of those illustrating the movement of vertebrates. These are thoroughly natural and also artistic, while Dr. Lehmann's labels are commended for their lucidity and his guide book for its charm and interest. Groups such as those under review do more than interest the casual visitor,

they shew him that nature is not simply something apart from the ordinary life of man, a convenient antithesis to art, but something real and worthy of study.

Dr. Lauffer continuing the subject of his article in Part I. (vol. III.) contributies two important chapters on the historical museum and its difference from art and industrial art museums. He contends strongly in favour of limiting historical museums to collections of local objects, the term "local" denoting towns, provinces or nations according to the scale of the museum. It is urged that such collections are easily got together, that they can be thoroughly dealt with by the average curator and that they serve an ethical purpose by inspiring the citizen with patriotism and a proper pride in his city. In dealing with the difference between historical and art museums, the writer points out that it is easy to confuse the objects that each should collect, that such confusion in many cases has been made, and further that many classes of objects are common to both museums. But such confusion is undesirable from practical as well as scientific considerations, for it may lead to the suppression of one or the other institution as superfluous. The various points of difference are mentioned and discussed—the most salient are that in the historical museum the past is only considered, the collection is generally local, the objects are typical ones and are chosen irrespective of beauty or excellence of workmanship, while in the art museum the reverse is the case in all instances, and the general aim is to shew the evolution of the present from the past.

Dr. Richter resumes his consideration of the purpose and functions of an ethnographical museum, devoting particular attention in the present article to specialization. This he considers under the heads (*a*) limitation to a particular geographical area (*b*) to a particular class of objects (*c*) to a definite period or era (*d*) to religious and (*e*) archaeological evolution. A special warning is given against narrowness of view, the result of want of knowledge or of sympathy. It has been too much our practice to look upon

all primitive peoples as actuated by only two motives, bloodshed or abject superstition. In treating of the need for careful sub-division and reasoned specialization, the writer illustrates his remarks by an exhaustive classification of the various stages and phases of Indian art, and of allied civilizations. In summing up, Dr. Richter points out that concentration and specialization are inevitable, partly from the very nature of the case and partly because no progress can be made unless some restraint is exercised. All this he considers points to the abandonment of ethnographical museums in the present sense of the phrase, and their replacement by museums having a more limited—but a much more definite and scientific—object in view. The Pitt-Rivers museum is pointed out as an example of the lines on which future progress must be made. Under the head of “Notices,” there is a terse and thoughtful review of the results of the Commission on the Chantrey Trust. The writer considers that the report of the commission is of the utmost importance to all concerned in the purchase of works of art, and he notes with approbation the fact that the experts examined before the commission were practically unanimous in urging that such purchases should be made by an individual and not by committees. He holds it to be emphatically a case in which personal judgment should be exercised, and personal responsibility recognised.

Belfast.

No. vi. of the “Quarterly Notes” (June, 1907) contains a number of short interesting articles illustrated by five figures. An interesting sketch is given of Alexander Mitchell, the blind Belfast engineer. There are also notes on (1) The Garron Point (Antrim) find; (2) The Tarpon; (3) Mother-of-Pearl; (4) Wild Flowers (with special reference to the orders Rosacea and Cruciferae). A particularly useful feature is a list of books treating of the subjects dealt with in the Notes. The pamphlet is one that cannot fail to stimulate and arouse interest in the collections.

Perth.

The account given of the year's work in the annual report on the Perthshire Natural History museum for 1906-7, is of the most favourable character. Several internal alterations have been made, all with the object of improving the exhibition of the specimens; many important and interesting additions have been acquired, and the attendance has exceeded that of the previous year by over 800. Considerable use has been made of the museum both for teaching and research, and 99 school children sent in essays on the "Land and Freshwater Shells of Perthshire, and their Inhabitants." None of those who have visited the museum will be surprised to learn that frequent applications have been made to the curator for information as to cases, fittings, &c. The museum authorities have generously lent a set of case fittings to one applicant.

Plymouth.

We are glad to learn that Plymouth is at last to have a permanent museum building. This happy result has been indirectly brought about by Mr. Carnegie's generous offer of £15,000 for provision of a library building. On the acceptance of this offer, the town council secured part of a vacant plot of land, and also adopted the suggestion of purchasing the remainder as a site for a museum and art gallery. About £6,000 of the £13,000 required for the erection of the building (a front elevation of which is given as the frontispiece of the report for the year ending March 31, 1907) has been subscribed, and it is hoped that the work will be begun this year. Museum work has gone on actively during the period under review. The exhibition of local wild flowers has been continued throughout the season. Several valuable sets of models purchased with the aid of grants from the Board of Education, have been exhibited. The illustrated penny guide has been replaced by a leaflet written by the curator, which has been distributed gratis. A short course of lectures has been given by the curator, assisted by Mr. Worth and Mr. Shelley, and the curator con-

tinued his series of lectures in the museum to school children with great success. The report in addition to a summary of work done, contains a brief reference to the Museums Conference at Bristol, and some useful recipes for cement, painting of shelves, &c., and removal of grease from skeletons.

Stockport.

The number of visitors to the Municipal museum in 1906 was 58,646, an increase of 1,843 over that of 1905. The Sunday attendance shews a decline of over 400, but this is more than compensated by a gain of over 2,300 in the week-day attendances. A grant in aid of £29 19s. 0d. was obtained from the Victoria and Albert museum for the purchase of various objects, including (a) electrotypes of goldsmiths' and silversmiths' work ; (b) specimens of forest trees ; (c) dissectible models of flowers ; and (d) a series of models illustrating the development of the common frog from the ovum to the adult. In addition to these acquisitions many interesting objects were given. Mr. Hewitt also refers briefly to his visit to the conferences at Bristol and Chester. School children continue to attend the museum for instruction. During 1906, 339 children visited the institution.

Sunderland.

From No 34 of the " Library, Museum and Art Gallery Notes " we learn that there is no diminution of activity in Sunderland as far as concerns museum matters. An interesting collection of embroideries lent by the authorities of the Albert and Victoria museum has been exhibited in the art gallery. The natural history collections have been enriched by the addition of a number of specimens including a pine-marten caught near North Shields in 1883. The pamphlet is illustrated by a plate shewing the famous Hildesheim treasure, electrotypes of which are on exhibition (on loan from the Victoria and Albert Museum) in the industrial arts section of the museum. In the text there is a full description of this important find, and a short account of the Roman method of serving meals.

York.

The annual report of the Yorkshire Philosophical Society for 1906 records a good deal of useful work, and gives a long list of interesting additions to the collections. An account is given of the 76th meeting of the British Association, held in the city during the year in question. Mr H. J. Wilkinson contributes an historical account of the Society's Herbarium; Dr Auden and Mr Geo. Benson give a description of an excavation in the city, in the course of which a number of interesting relics were discovered; and Mr. J. E. Clark describes a curious wind-rush which occurred in the neighbourhood of York. The report is illustrated by five plates and two sketch maps.

General Notes.

AT HOME.

APPOINTMENT.—It is stated by the *Irish Times* that the post of director of the Dublin museum, rendered vacant by the retirement of Colonel Plunkett, has been filled by the appointment of George Noble, Count Plunkett, the well-known art connoisseur.

DIRECTOR OF THE BRITISH MUSEUM (NAT. HIST.).—It is stated that Sir E. Ray Lankester has tendered his resignation of this position, which has been accepted by the trustees, but that it will not have immediate effect.

GOLDEN WEDDING OF DR. H. WOODWARD, F.R.S.—As a past president of the Museums Association, Dr. Henry Woodward is well-known to all the members, who will most heartily join in the many congratulations offered to him and his helpful spouse on the completion of fifty years of married life this month. May many more peaceful years of happiness be in store for them as the twilight falleth down.

BRISTOL ART GALLERY.—Thanks to Lord Winterstoke's generosity, an important picture from this year's Royal Academy has been added to the permanent collection at the above gallery. It is entitled "The Funeral of King Charles I." and is the work of Ernest Crofts, R.A., from whom it was bought direct by Lord Winterstoke.

NAVAL RELICS.—His Majesty the King has presented to the Royal United Service Museum, Whitehall, the figurehead (representing King George III.), the coat-of-arms, and the stern figures of the Royal yacht "Royal George," launched at Deptford in 1817 and broken up at Portsmouth in 1905. These exhibits will be on view when the museum is re-opened later in the year.

THE NATIONAL GALLERY, LONDON.—The following pictures have lately been added to the National Gallery :—"Une Parade," by Gabriel de Saint-Aubin, No. 2,129, hung in Room XVII., bought from the Lewis Fund. "The Water Lane," by Jan Siberechts, No. 2,130, presented by Mr. J. P. Heseltine, hung in Room XIII. "Roses," No. 2,133, and "Apples," No. 2,134, by Henri Fantin Latour, and a sketch of "The Marsh of Arleux," by J. B. Corot, No. 2,135, all bequeathed by the late Mrs. Edwin Edwards and hung in Room XVII. A small engraved portrait of Lully, the musician, by Auguste de Saint-Aubin, No. 2,136, illustrating the picture by Rigaud, No. 2,081, presented by the Comtesse de Coullanges, hung in Room XVI. Besides the above permanent additions to the gallery at Trafalgar-Square, Sir Hickman Bacon has lent his "Tavern Scene" by Adrian Brouwer, placed in Room XIII. ; and Sir George Donaldson has lent his portrait of "Bona of Savoy" by Ambrogio de Predis, which has been placed in Room IV. The following two pictures have been added to the collection of British pictures at the Tate Gallery :—"The Picnic," by Sir David Wilkie, No. 2,131, presented by Sir Charles Robinson through the National Art Collections Fund, hung in Room I. ; and a portrait of Mr. Morris Moore, by Alfred Stevens, No. 2,132, presented through the National Art Collections Fund, by Mr. J. Duveen, Mr. Sargent, R.A., Mr. Herbert Cooke, Mr. A. MacNicol, Mr. A. A. de Pass, and other donors, hung in Room III.

NATIONAL PORTRAIT GALLERY.—The following donations to the National Portrait Gallery have recently been received and accepted by the trustees :—John Frederick Lewis, R.A., 1805-76, the well-known painter, a sketch in oils by Sir William Boxall, presented in accordance with the instructions of the late Mrs. J. F. Lewis. Rev. Sydney Smith, 1771-1845, Canon of St. Paul's Cathedral, the eminent preacher and wit, painted by Henry P. Briggs, R.A., and presented by the Viscount Knutsford, G.C.M.G. Samuel Sharpe, 1799-1881, translator of the Bible and Egyptologist, and Joseph Bonomi, 1796-1878, sculptor and draughtsman,

both painted by Miss Matilda Sharpe, and presented by the artist and her sister. The following portraits have been acquired by purchase :—Thomas Osborne, first Duks of Leeds, K.G., 1631-1712, a full-length portrait in Garter robes, as Marquis of Carmarthen, attributed to Sir Godfrey Kneller. John Hookham Frere, 1769-1846, diplomatist, author, and translator of Aristophanes, drawn by Henry Edridge, A.R.A. Charles George Gordon, 1833-85, the hero of Khartum, a sketch in oils by Professor Leo Diet, of Graz, taken at Cairo just before he left on his last journey to Khartum.

BIRMINGHAM ART GALLERY.—The collection of English china, principally Worcester and Spode, bequeathed by Mrs. Nettlefold, of Hallfield, Edgbaston, in memory of her son Hugh, who was formerly a member of the art gallery purchase committee, is now exhibited in two cases in the Wedgwood gallery. The Worcester collection, though small, is of considerable interest, as it covers a very wide range of the manufactures of the well-known porcelain factory. It consists of a large number of cups, saucers, coffee cups, small jugs, teapots, vases, and bowls. Two of the services are Oriental in character, the decoration being a faithful copy of the Chinese original. There are a large number of examples of transfer printing, including one of the famous mugs of the King of Prussia; the well-known Worcester scale blue is also represented by a very fine specimen of a jar and cover. There are also various plates of a similar character. The collection of Spode shows exhibits of a variety of workmanship. This is a manufactory which is still continued in the name of Copelands, and much of the ware is decorated in the style of Derby china. Amongst this porcelain will also be found examples illustrating how closely English potters of this period imitated, as at Worcester, Oriental china. All the exhibits bear labels, giving the marks and various periods of manufacture, and in the cases will also be found descriptive labels relating to the history of the Worcester and Spode manufactories, and the method of producing transfer ware. As the gallery contained little or no English china, these additions are of considerable value and interest.

PICTURES FOR ST. PAUL'S CATHEDRAL.—The widow of Mr. G. F. Watts has announced that she will give another of her husband's pictures to St. Paul's cathedral. Some years ago a version of the artist's painting "Time, Death, and Judgment" was presented and hung in the cathedral.

Mr. Charles Booth has also given to the cathedral his replica of Holman Hunt's "The Light of the World."

PHOTOGRAPHS OF SELBY ABBEY.—An interesting and valuable collection of whole-plate photographs of Selby abbey, exterior and interior, showing the architectural features before the fire occurred, has been presented to the Hull Municipal museum by Mr. D. Foster, of Seiby. After such havoc wrought on the structure by the recent conflagration, the photographs are of peculiar interest; but apart from that the details exhibited form a most welcome addition to the collection of local architectural photographs which is being gathered together at the Hull museum.

THE ROYAL SCOTTISH MUSEUM—DONATIONS TO THE NATURAL HISTORY DEPARTMENT.—The natural history department of the Royal Scottish museum has recently received some valuable donations. One of the most important of these is a complete skeleton of the Atlantic right whale, presented by Mr. Carl F. Herlofson, of the Isle of Harris. This species of whale is extremely rare, and until last year was believed to be practically extinct in the North Atlantic. It is, moreover, the only species of right whale which has been known to occur in British seas. Another interesting cetacean, also belonging to a species new to the museum collection, is the white-beaked dolphin, of which an adult mounted specimen has been presented by Mr. William Lumley, of Cramond. From this example a complete skeleton has since been prepared. A stuffed specimen of the orang-utan has been given by Mr. Rowland Ward, London; while the museum is indebted to Professor Sir E. Ray Lankester, K.C.B., for casts of skulls of two okapis in the British museum collection. A fine series of birds' eggs, principally of exotic species, has been presented by Mr. J. J. Dalgliesh, Brankston Grange, near Alloa; while the cabinet of British insects has been enriched by the gift of 454 specimens of neuroptera from Professor King, Glasgow, and 822 specimens of hymenoptera from Mr. Claude Morley, Ipswich. The natural history section of the library is much indebted to his Serene Highness the Prince of Monaco for a set of valuable illustrated monographs dealing with the results of his investigations into the fauna of the Atlantic ocean and the Mediterranean sea.

THE EDINBURGH MUNICIPAL MUSEUM.—Edinburgh has been able to boast a municipal museum for a considerable period, but it is only within recent years that the antiquities

of the city were placed in their present position in the City Chambers. The collection is gradually growing in dimensions, and while the house-room at present given to the exhibits is excellent, the apartments set aside are inaccessible to a considerable extent. Lord Rosebery, with a due sense of appropriateness has presented a building wherein the memorials of old Edinburgh may have a proper setting. This is Lord Stair's house, the quaint interior of which will appeal as an ideal store-house for these links in the historic chain of Edinburgh.

MUNICIPAL ART GALLERY FOR DUBLIN.—Premises have been acquired for a municipal art gallery in Dublin, and a collection of pictures has been offered to the city by Mr. Lane and others. The city council have now under consideration the best method of securing the means for maintaining such an institution.

AN OLD HULL LIBRARY.—The mediæval parish library containing three or four hundred books, which for over two hundred years has been within the precincts of the church of Holy Trinity, Hull, has been handed over to the museums committee by the churchwardens. The Archbishop of York has granted a faculty for this to be done. The books have been removed to the Hull historical museum, Wilberforce House.

ROYAL RELICS FOR THE GUILDHALL, LONDON.—An interesting collection of relics of Queen Victoria and the Duchess of Kent has been presented to the Guildhall museum by Mrs. Victor Maslin, whose husband was a godson of the late Queen's mother. Among them are a portrait bust by Theed, of the Duchess of Kent—a replica of the miniature one at Frogmore; a bust of Queen Victoria when a child, by Bennes, which was given by Her Majesty to the late Mr. Victor Maslin in 1888; a lock of Queen Victoria's hair when a child, presented to the late Mr. Stephen Maslin in 1839; an autograph photograph of the Duchess of Kent; a drinking glass used by Queen Victoria, and a card case, inkstand, pen rests, and taper holder, the property of the Duchess of Kent. Another relic is a Spode drinking glass, the initials on which are those of the attendant who awoke the Princess Victoria on the morning of her accession. There is also a copy of Macaulay's "Essays," which was given by the Duchess of Kent to Mr. Victor Maslin, and which bears the inscription: "To Victor Maslin from his god-mother, Victoria Duchess of Kent, Frogmore, Jan. 1, 1861," and below are the words: "Written by my beloved

mother, Feb. 26, 1861, Victoria R." Another item in the collection is the MSS. notes on the English Constitution, prepared by Sir Edward Conroy, Bt., in 1835, and bearing the following in the autograph of the late Queen: "The following pages I have to thank Edward Conroy for. In them he has collected a variety of useful information for me to refer to, relative to the constitution of this country.—Kensington Palace, 3 March, 1835."

SOME BRADFORD ANTIQUITIES.—An interesting collection of pictures and documents bearing upon the history and social life of old Bradford has been arranged in the Cartwright Memorial Hall. Since the inauguration of the hall a room in the building has been set aside for the exhibition of local antiquities, the main feature being the large collection of views of Bradford a generation ago, which the corporation received as a gift from the late Alderman Hammond. This collection has received of late several interesting additions, especially portraits, and with the collection just arranged, which is the property of and has been lent by Mr. W. Scruton, the "Old Bradford Room" is now a most interesting section of the museum. Mr. Scruton's collection includes many views—some of his own draughtsmanship—of old Bradford sites and portraits in many methods. The greatest treasures are among the manuscripts. Included in these are documents of various kinds bearing the signatures of many old Bradford worthies.

A CHILDHOOD GALLERY.—The experiment which the Manchester art gallery committee have made this year at Queen's Park of holding an exhibition of pictures illustrating childhood seems likely to result in the creation of a permanent "Childhood Exhibition." The exhibition, says the *Manchester Guardian*, has been visited by large numbers of young people. In many cases school children accompanied by their teachers, have viewed the pictures and written essays on what they saw. The venture has answered so well that the committee, subject to the approval of the city council, have purchased eleven of the water-colour drawings to form the nucleus of a permanent collection in a "childhood gallery," and the Friends of Art Society have followed this up by purchasing four more and handing them over to the city authorities.

OBITUARY.—Francis Ford, Secretary to the Society of Art Masters and sometime curator of the Royal Architectural Museum, Westminster, died on 19th August, aged 76.

ABROAD.

RESIGNATION.—Dr. James E. Talmage, delegate at the Sheffield (1898) meeting of our Association from the Deseret Museum, Salt Lake City, Utah, U.S.A., has resigned the professorship of geology which he has held for thirteen years at the university of Utah, and intends to occupy himself with mining geology.

BERLIN MUSEUM OF TRAFFIC AND ENGINEERING.—This museum, comprising three main departments devoted to railway, naval, and civil engineering respectively, is located in the old Hamburg passenger railway station, the basement of the building having been re-constructed for the purpose of housing the collections. An interesting account of the museum appeared in the August number of the *Engineering Magazine*.

LOCAL MUSEUM IN WELLINGTON, NEW ZEALAND.—Mr. A. Haylock of the Office of Lands, Government Buildings, Wellington, New Zealand, informs us that a city museum is being established, the collections for it being at present accumulated in the South Wellington library. Mr. Haylock, who is engaged on the collection of shells, is anxious for the purpose of exchange, to enter into communication with European collectors.

THE ART MUSEUM, CHRISTIANIA.—This museum was re-opened on the 25th of June, after having been closed for a year and a half. A new aisle of the same dimensions as the original block has been added. The chief attractions of the museum consists now, as before, of its collections of Scandinavian art, and more specially of Norwegian modern painting and sculpture. The collection of casts has largely gained in interest by the addition of a number of Greek archaic statues. The printroom and library will be open to the public also in the evenings.

A NEW FOUND VIKING SHIP.—On the 30th of June the viking ship, discovered at Oseberg, near Tousberg, in 1903, was for the first time after its excavation exhibited to the public. This is the third old ship belonging to the time of the vikings found in Norway. The first, discovered at Tune, near Sarpsborg, in 1867, and the second, the famous one found at Gokstad by Sandefjord, in 1881, are both exhibited in special buildings in the garden of the university of Christiania. The recently discovered ship is also for the present exhibited in a special building, all the buildings being temporary ones. The authorities have not yet decided

whether the ships are to be provided for in an aisle to be added to the Historical museum or in a special separate building. The new ship is sure to become the chief attraction of the museums of Christiania, as well on account of its nearly perfect preservation as of the highly interesting richly carved ornaments on it. The length of the ship is 21½ meters, the breadth 5 meters. It was fitted with 15 oars on each side. In the sepulchral chamber was found two human skeletons, both female, probably those of the owner and her maid. This elegant ship is not supposed to have been destined for long voyages, but rather built as a pleasure-boat for excursions on the fjords. To judge from the ornaments and other evidence it dates from about the year 800. The ship was dug out of a tumulus partly consisting of clay, which accounts for its wonderful preservation. By movements in the ground the bottom of it had, however, been lifted and broken. The thousands of small bits were numbered and brought to Christiania, where the wood (oak) was boiled (some parts even three times) and bent into the original shape. As the ship now stands it looks as it did 1,100 years ago (the only important parts wanting being the upper parts of the stern piece and the stern piece itself). The rudder, the anchor, the oars, the gangway—everything is there—even two-thirds of the clincher nails. Amongst the many objects found in it, such as implements for weaving and spinning, a four-wheeled carriage, sledges, beds, cooking utensils, textiles, skeletons of horses, oxes and dogs, &c., several are extremely interesting on account of their rich ornamentation, chiefly consisting of animals carved in relief. All these things mostly made of beech and other soft kinds of wood, require a long and difficult process of conservation. As soon as this task is completed they will be exhibited in the historical museum. The successful excavation, the transportation and perfect re-building of the ship is due to the good methods as well as the good experience, ability and diligence of G. Gustafson, professor of archæology at the university of Christiania.

THE WESTERN AUSTRALIAN ART GALLERY.—The aim of the committee of this institution is to acquire a representative collection of the works of the great masters of the British school, and through the kindness of Sir James D. Linton two important paintings have just been obtained. "Circe with the Sirens three amidst the flow'ry kirtled Naiades," an illustration of a scene in Milton's *Comus*, by

W. Etty, R.A. (canvas 46 by 71 inches), and a landscape of mountain scenery with Banditti, by P. J. de Louthembourg, R.A. (canvas 38 by 28 inches).

THEFT FROM THE ROYAL MINERALOGICAL MUSEUM OF DRESDEN.—During the night of August 19th there was stolen from this museum 33 diamonds, 8 pieces of gold, and many precious stones, especially sapphires, emeralds, platinum, iridium and iridosmium. The Government has offered a large reward for detection of the thief. The specimens stolen were exhibited in glass-covered horizontal cases, the glass panes of which had been destroyed by the thief. Valuable specimens, easy to carry away, ought in all museums to be specially safeguarded during the night by thief resisting contrivances, as is done for instance in the National museum of Ireland in Dublin, and in the Schweizer Landes museum of Zurich. Far more extensive use might also be made of the night control with electric signals than is done at present in most museums.

OBITUARY.—Dr. William L. Ralph, curator since 1897 of the section of bird's eggs in the U.S. National museum, where his own rare and extensive collection was deposited, died at Washington, D.C., on July 8th.

MUSEUMS ASSOCIATION.

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The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of 10s. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

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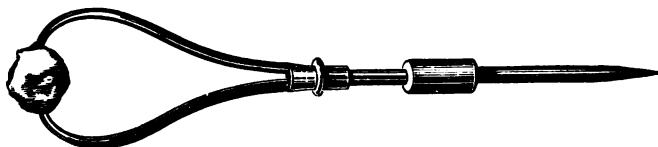
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MR. JOHN MACLAUHLAN.
President, Museums Association, 1906-7.

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No. 4.

John Maclauchlan.

IN MEMORIAM.

[T is our painful duty to record the death of Mr. John Maclauchlan, the honoured and beloved President of the Museums Association. At the conference of the association in Dundee he was alert, active, full of energy, and, on the closing evening of our meeting, it was with a feeling of relief and thankfulness we saw that he had borne the strain of his duties without apparent hurt. When we parted from him on the evening of the memorable Friday, the 12th of July, little did any one of the company think that on Friday, the 4th October, his remains would be laid in their last resting place. He sleeps his last sleep in Wellshill Cemetery, a green knoll in the city of Perth, within sight of the broad Tay, Scone Palace, and the Grampian Hills, all of which were dear to his heart.

On Monday, the 16th September, accompanied by Mrs. Maclauchlan, he left Dundee to attend in Glasgow the annual conference of the Library Association. Till then he had no holiday, and, in view of a brief vacation after the close of the library meetings, he travelled in the happiest of spirits. At the meeting on Tuesday morning he was justly gratified to hear his friend, Andrew Carnegie, eulogise him as a born librarian, and the meetings and functions of that and of the following day he enjoyed with more than usual heartiness. But late on Wednesday evening, a mortal disease, the presence of which was known to himself and a few intimate friends only, was stirred into activity. His illness quickly assumed a serious aspect; soon it was found that it could have only one termination, and in Camphill House, Glasgow, at 12.50 on the morning of 1st October, he passed peacefully away.

John Maclauchlan was born in Perth, on the 2nd July, 1838. He was the son of a house painter and decorator, and in his early years he was associated with his father in that business. Following such a pursuit, he might have developed into an artist, but his love of books overpowered every other impulse. At the age of twenty-one he undertook the management of the Perth Mechanics' Library, and devoted to the interests of that institution, the hours which young men generally give over to sports and social recreation. The Perth Library he continued to cherish till, in 1874, he was invited to occupy the office of public librarian in Dundee. When he entered on his duties at the Albert Institute he had under his care only a conjoined reference and lending library of very modest character. With Celtic ardour and Saxon tenacity he threw himself into his work. Immediately he installed the reference library in the Albert Hall, the finest apartment in Britain devoted to such use, as he maintained. The Dundee Museum, then housed insufficiently and severely neglected, was transferred to the Albert Institute, and under his fostering care it grew to the fine and adequate condition in which we know it. The continued growth of the museum collections some years ago necessitated increased accommodation, which was found by opening Dudhope Castle as a branch museum with the nucleus of a technological collection. The foundations of the permanent picture collection were laid, and for many years Mr. Maclauchlan carried out a series of annual exhibitions of modern art, which were more popular with the multitude, and more profitable to artists than the corresponding exhibitions in any other Scottish town. Through the untiring exertions and zeal of Mr. Maclauchlan, Dundee now possesses a collection of modern pictures which will bear favourable comparison with any public collection of like works in Scotland. In recent years the planting of district libraries was a subject which lay near his heart. Thanks to the magnificent assistance of Mr. Thomas Cox, of Lochee, the first of such branches was planted in that district, and later

with a grant of £37,000, from Mr. Andrew Carnegie, a second district library has been successfully opened, two others are in progress, and the plans for a new reading room in the Albert Institute have been approved of. Thus Mr. Maclauchlan has had his heart's desire. To die in harness was his wish, and although his prayer was granted, it was in a way different from what he himself forecast, for he made a strenuous fight for life.

Mr. Maclauchlan was a man of prodigious industry, and in his labours he found both his refreshment and reward. He was an enthusiastic believer in the high mission of museums and art galleries. "It is, indeed," said he, in his presidential address, "a commendable virtue—the merit of a sense of proportion notwithstanding—for any man to magnify his work—the shoemaker who does not believe there is nothing like leather will probably be a mighty poor shoemaker. And so unblushingly unrepentant I believe in and still maintain the high educative nature of this work of ours." In this connection it is worth recording that his latest conversation with a colleague, the evening he was stricken, turned on the Museums Association, when he said how greatly he enjoyed the annual conferences, how much he benefited by intercourse with his brother curators, and how lasting and sincere were the friendships he had formed among the members.

Mr. Maclauchlan was an omnivorous reader with an unusually lively apprehension and a memory that retained everything; his stores of knowledge in all departments, but specially in history, were as remarkable in extent as they were in accuracy of detail. That knowledge was at the service of everyone who sought his counsel and aid, and the stimulating influence of his enthusiasm was even more helpful than the direct knowledge he communicated. In art his appreciation was keen and just, but his benevolent nature and his natural modesty made him more ready to see beauties than to discover failings.

The very stones of his native city were dear to John Maclauchlan. He loved the streams, glens, and hills of

Perthshire ; he loved books and pictures ; but above all he loved his fellow beings. He was a good man—not a street preacher, nor one who paraded his godliness, but nevertheless one who went about doing good. However full might be his hands with work—and they were never idle—no appeal to him, even from the very humblest, was overlooked or neglected. To be able to help in any trouble or difficulty was his chiefest joy, and he was unsparing of means, time, and charitable sympathy in his service of man. It was fitting that the last message be sent to the outer world was a telegram to comfort one in affliction, and that his absolutely last act was to sign a cheque to help a fellow being in a time of difficulty and distress. As he lived so he died.

Our sympathies go out to Mrs. Maclauchlan in her sorrow. Her loss is great, for her possession was great, and as time passes on she will have the consolation of realising more and more that she had the privilege of being a faithful helpmate and companion to one who was a truly noble man. J. P.

Notes on Preparing Artificial Ground-work for Mounting Individual Specimens and Economic Sets, &c., in Spirit.

By F. G. PEARCEY, Bristol Museum.

[Read at the Dundee Conference, 1907.]

ALL curators are well aware how difficult it is to mount spirit specimens satisfactorily, whilst few attempt to add anything in the nature of natural surroundings. Yet many species and indeed whole groups lend themselves readily to a natural grouping by the method here briefly described.

I have lately made experiments with various materials in order to devise a method likely to give a more life-like and natural character to various museum preparations. I

have been successful in preparing a cement which answers the purpose admirably, giving the animals mounted a much more life-like appearance, and what is of more importance, allowing the natural conditions of environment to be imitated with some degree of success. The essential materials made use of are glue, turpentine, distilled water, broken glass, various sands, clays, &c. Dried plants or portions of plants can be made use of where necessary whilst the use of dry colours enables a preparation to be toned down to any desired tint. One museum preparation recently set up will serve to illustrate the manner in which these materials are used. The preparation is one designed to illustrate the character and natural surroundings of the common, palmate, and crested newts during the spring when they frequent ponds. First, a sufficient quantity of best glue (fish glue by preference) was soaked with distilled water until it had absorbed as much as it could. This was then boiled without adding any more water. It was allowed to simmer until a skin covered the surface, after which turpentine was added until the surface of the glue was well covered. By being kept hot the glue and turpentine became well mixed, when the preparation was ready for use.

I then commenced to set up the grouping. The size of a square jar once decided upon, a background of opal or blue glass was cut as large as possible whilst allowing for ready fixing or removal. The glass background was then irregularly scored with a diamond over an area of 2 inch, measured from the bottom. Upon the scored area a few pieces of 30 ounce glass 1" long by $\frac{3}{8}$ " wide were cemented with the turpentine glue and allowed to dry; these furnished a good hold or foundation to the mass of ground work. Three parts of well-dried peat mould and one part of sand, together with broken and whole shells of *Pisidium*, *Anodonta*, &c. were all well mixed and coloured to the desired tint by the addition of a little dry colour. When a quantity sufficient to cover the 2" area marked on the glass had been so prepared it was worked up into a plastic or putty-like mass by adding turpentine glue, and spreading irregularly

over the foot of the glass to form a back ground 2" deep, Whilst still soft, the surface was worked upon and examples of *Limnæa*, *Planorbis*, and other aquatic material naturally occurring on the bottom of ponds, added. If, as in our case, the square jar used is of sufficient depth from back to front, the material can be worked up into a sloping bank upon which newts in different positions, water beetles, &c., can be grouped. The space left on the glass back-ground was utilised by boring holes through the glass, and attaching newts, sticklebacks, and other free swimming forms in various positions by means of fine silver wire or cat-gut. If necessary others can be held up by fine glass rods sunk into the ground work. In the preparation sprays or tufts of water plants such as *Anacharis*, *Vallisneria*, or the well-known frog-bit were fixed here and there by making a pit in the ground work with a sharply pointed tool and fixing them in with a little of the prepared material.

The whole preparation was then placed in the square jar previously filled with 75 per cent. to 90 per cent. spirit. In a few hours the ground work became quite hard. It is best to make a plaster base where the ground work is to cover the whole of the bottom of the jar, and afterwards coat it over from $\frac{1}{8}$ " to $\frac{1}{2}$ " thick with the cement in, and on which the decorative material is to be fixed.

The descriptive or ordinary label can be placed either at the top or bottom of the preparation inside the jar. In practice we find the most effective label is one printed in bold type on tissue paper, pasted on a piece of opal glass to suit the size required, with stickphast and dried under slow heat. In jars with no ground work, these labels can be affixed to the glass background of the jar with turpentine glue, or in the case of a jar with ground work a convenient position in the centre can be left for the purpose. When the ground-work is fixed to the glass background the whole preparation can be lifted in and out of the jar in one piece should it be necessary to change the spirit at any time.

A Method of Utilising Small Wall-areas in Museums for Spirit Preparations.

BY F. G. PEARCEY.

[Read at the Dundee Conference, 1907.]

THERE has recently been added to the Bristol museum collections a preparation which may be of interest to the members of the Museums Association as illustrating a simple method of utilising wall spaces.

The preparation consists of a group of specimens showing a series of stages in the life history of the common trout from the egg, one day old, to a yearling fish of four inches. The series is set up in ordinary square museum jars in the usual way.

In order to utilise a bare patch of wall near one of the doors, a mahogany board three feet high by two feet broad was prepared, and hung upon the wall by ordinary picture hooks. Upon the face of the board, each jar was fixed in position, being held rigid by a set of three clamps. Two of these clamps form a rest for the base of the jar, and are bent upwards in front, whilst a right or left side flange comes off from the side of the bottom portion of each clamp and binds against the side of the jar. The jar is thus held in position by a clip on each side, and by two along the lower front edge. To prevent all danger of the jar tilting out of the saddle which the clamps form, a third clamp is fixed to the wall board, after the jar is in position, and binds firmly down upon the middle of the lid. This effectually prevents tipping, and holds the jar perfectly rigid. Another advantage which this method of setting up preparations has, is that of allowing ready removal to a lecture theatre or students' room. The board is simply lifted off its hooks and carried off like a picture.

In the particular case here cited, the specimens were set up in formalin and considerable difficulty was experienced in attaching the necessary explanatory labels. This was finally overcome in the following manner. The label was

printed upon fine tissue paper and then cemented down upon a piece of opal glass with ordinary stickphast paste. When thoroughly dry, the label was coated with a thin layer of photoxylin, which was dried hard by warming. Treated in this way, the labels gave no further trouble.

The clamps are made of thin strip iron $\frac{3}{8}$ " wide, stained dead black, the side and front flanges are turned up from $\frac{1}{8}$ " to $\frac{1}{4}$ " according to the character of the jar supported by the clamps. Each clamp has a long back arm passing up behind the museum jar and fastened to the board by small screws. The cost of making the clamps is very little, they are not obtrusive, whilst the whole preparation has a neat appearance, and can if necessary be enclosed by a glass fronted frame, the sides of which are a little deeper than the thickness of the jars. If one of the jars requires examination or alteration, all that is necessary is to remove the lid clamp, when the jar can be lifted out of its supports.

DISCUSSION.

Mr. F. R. ROWLEY : " I have never tried anything that will preserve plants with anything like success or good results. I was wondering if Mr. Pearcey got his results with something I had not tried." Mr. Bolton spoke of formalin.

Mr. BANTRY WHITE : " I should like to ask Mr. Bolton if when the preparation jars are placed on the boards on the walls of the museum whether the clamps are of sufficient strength to prevent the public interfering with the specimens. I may mention that in Dublin, where we use a somewhat similar idea in sending specimens to the country schools, which the president mentioned in his address, the clamps of the jars are constructed of wood. What is the cost, and are the clamps sufficiently strong to stand handling by the public ? We have very beautiful preparations coloured by hand and preserved in methylated spirits. We have heard complaints about the great expense of jars. We wish to get something which will show the various objects well in jars costing about £1."

Mr. BOLTON : " I have a specimen here mounted in the way I speak of. We vary the size of the clamps. It is merely a question of getting thin sheet-iron bent to the

shape and the holes punched for the screws ; and all the screws are hidden by the bottle itself. In regard to the method of display, some specimens are presented side on, some straight. With regard to the cost of the bottles, there is no cheap method of making them."

Mr. SOUTHWELL : " With regard to the cost of the preparation jars, I think there might be combination among museums and that stock sizes might be arranged for, and thus get them more cheaply in that manner."

Mr. BOLTON : " They already keep stock sizes. A new bottle is coming on the market ; the edges of the glass sides have large tongues which are clamped down, and are better than the old method."

Mr. BANTRY WHITE : " Dublin Museum has been using a form of glass bottle which we get from a French firm. It is made of the best plate-glass and they have some method of welding down the edges. You have a bottle, thus, which does not distort from whatever side you look at the specimen."

The Aims and Objects of Museums.

By B. H. WOODWARD, F.G.S.

(Western Australian Museum.)

UNDER the title of "The Aims and Objects of Museums," the following lecture—the first of a series given on Science and Art—was recently delivered by Mr. Bernard H. Woodward, F.G.S., the director of the Western Australian Museum and Art Gallery.

The degree of civilisation to which any nation, city, or province has attained is best shown by the character of its public museums and the liberality with which they are maintained. In mentioning museums, I, of course, include art galleries and libraries, for a library is an integral part of a museum, while an art collection is one of its first essentials.

Before entering into fuller details as to the aims and objects of modern museums, let us look back into the past, when we shall see that the earliest museum of which we

have any record was that founded by Ptolemy Soter, at Alexandria, about B.C. 300. It was, as the etymology of the name implies, a home of the muses; it was a place appropriated to the cultivation of learning, a meeting place for philosophers, who devoted themselves to the improvement of knowledge by delivering lectures and entering into discussions. It contained sculptures, paintings, manuscripts, and, in all probability, some natural history collections, for the Alexandrians greatly venerated Aristotle, who had been the first to make collections of and to describe such objects. In later times it became the fashion amongst monarchs and wealthy people to collect works of art and curios to adorn their palaces, more in order to display their power and magnificence than for the purpose of acquiring and spreading knowledge. It was not, however, until the time of Conrad Gesner, born at Zurich in 1516, that a natural history museum on modern lines was founded. Gesner has been called the father of museums, and his "History of Animals" was regarded by Cuvier as the basis of modern zoology. In England the earliest collections of importance were those of John Tradescant and his son. The latter published a catalogue of the specimens, which included the feathers of the phoenix, a claw of the roc, an egg of a dragon, and a dodo from the Island of Mauritius. With the exception of the head and foot of the latter, which are now preserved in the Ashmolean Museum, Oxford, the others have all disappeared.

Most modern museums have, until the last half-century, had their origin in private enterprise, for the Museums Act was not passed until 1845. To this further reference will be made, after I have said a few words on the most important of all such institutions.

The British Museum was founded by an Act of Parliament, passed in 1753, "for the purpose of purchasing the collections of Sir Hans Sloane, and of the Harleian Manuscripts, and for providing one general repository for the better reception, and more convenient use, of the said collections, and of the Cottonian Library, and of additions

thereto." Sir Hans Sloane, an eminent London physician, was for sixteen years president of the Royal College of Surgeons, and the successor of Sir Isaac Newton in the presidency of the Royal Society. His will gave the nation the option of purchasing his collections for £20,000, a sum much below their cost and value. In 1754 Montague House, Bloomsbury, was purchased for the reception of these treasures, which were placed in the care of trustees. In 1759 the public were admitted by ticket, for which written application had to be made, and it was not until 1810 that free access was given from 10 to 4 on three days weekly. The present classical building, with its famed Ionic portico, was erected in 1854, and the new reading-room in 1857.

The Western Australian Museum has a history similar to that of most museums of its age. It originated in private enterprise nearly half a century ago, to be exact, in 1860, when Captain John Septimus Roe, R.N., the surveyor-general, called for subscriptions, raised the sum of £340 19s., and founded the museum in the Swan River Mechanics' Institute, to which he gave his extensive and valuable collections and devoted much time to their arrangement. In 1881 the Rev. C. G. Nicolay, the registrar of minerals, started a geological museum at Fremantle. In 1888 the Government geologist, Mr. H. P. Woodward, started a museum in Perth, in the chapel of the old gaol, now the ethnological gallery, to illustrate his work, and in the following year the Fremantle collections were amalgamated with them, and I was appointed curator. In 1892, the Government purchased the collections in the Swan River Mechanics' Institute, and removed these to this site, and Colonel Phillips presented a large number of native weapons collected by the police. In 1895 the northern gallery was built and the institute taken from the control of the minister for mines, and placed under a committee of eight gentlemen, with Sir James G. Lee Steere as chairman, and the annual grant increased from £200 to £4,000 (it has since been reduced). In 1897 the James Street wing was erected, but

the ground floor and basement were lent to the public library, and only came into the care of the museum committee in January of this year. In 1900, parliament voted a sum of money for building an art gallery on the Beaufort Street frontage, for which plans were prepared, and H.R.H. the Duke of Cornwall and York laid the foundation stone on the 24th July, 1901. H.R.H. had enquired if the building was to be erected at once, and only consented to perform the ceremony on receiving through Sir Arthur Lawley the assurance of the premier, Mr. George Throssell, that such would be the case, and this assurance was renewed by his successor, Mr. George Leake. Tenders were actually called, but owing to the untimely death of Mr. Leake the promise has not been fulfilled.

I will now call your attention to the present state of the collections. How do you get all these things? is a question that I have been asked by visitors. This question will be best answered by giving an outline of the plans approved by the committee, who, at one of the earliest meetings, resolved that this being the National Museum of Western Australia, it ought to contain specimens of all the fauna and flora, that is to say, of all the animals and plants, of all the minerals and rocks, of all the weapons, utensils, etc., of the natives, and also of every thing obtainable connected with the early history of the State. At the same time to make the collections of real educational value, types of orders not found here, were to be obtained; for instance, of the twelve orders of mammals only four are indigenous, of these nearly every species has been obtained, and of the eight foreign orders examples of each of the chief families only are displayed. While of the thirty orders of birds, twenty inhabit Western Australia represented by nearly 500 species, of which 400 have already been obtained, and of the foreign orders typical examples of all but two are now on exhibition. Of fish, thanks to Mr. Gale and Mr. Broadhurst, there are many specimens, as also of the reptiles, but at present the frogs are very few in number. The

mineral and rock collections of the State are very complete, and the Woodwardian collection contains 1,400 specimens from all quarters of the globe, which have been of great use to prospectors, and so has the Tennant Collection of fossils. It contains some 3,000 fossils, chiefly British, representing all the fossil-bearing strata of Europe. A further set of 916 fossils presented by the trustees of the British Museum three years ago is still packed away for want of cases. These fossils are invaluable for purposes of comparison with those found in this State, as well as for the teachers and students of the technical schools. Of invertebrate life, the mollusca, corals, and sponges are fairly represented, but the collections as far as the other three sub-kingdoms are concerned are still in their infancy.

An excellent set of timber specimens shows their quality and durability, and the methods adopted for the further illustration of the trees in life, their bark, fruit, flowers, and leaves by means of photographs and coloured drawings were shown on the screen by lantern slides. The Western Australian ethnological collections are extensive, they are supplemented by examples from other parts of Australia, as well as by European, African and American specimens.

Time does not allow me to go into the question of the art collections, but in their selection there has been since 1897 a definite plan. The arts and crafts section was inaugurated to show visitors what designs are in good taste, and they have been well studied by the blacksmiths, the woodcarvers, the potters, and other craftsmen who have warmly expressed their appreciation, as have the officers of the technical schools. I have given rather a lengthy outline of the contents of our museum to show its aims and objects, and how they have been carried out. The real objects of a museum, according to Sir William Flower, are research and instruction. To the latter much attention has been given, but to the former little, as yet, although, through the energy of the collector, Mr. John T. Tunney, many additions to our fauna have been made, and still more, as far as our birds are concerned, by

our enthusiastic honorary ornithologist, Mr. W. A. Milligan. If this is all that has been effected in the way of research at present, it must be remembered that, as a national museum, it has not yet completed its tenth year, and with so limited a staff there has been no opportunity of doing much original work. As a matter of fact, the staff has not been increased since 1896, although the collections have increased five fold.

The educational value of the museum, of which I have already given some instances, will, I trust, be greatly enhanced by this series of lectures. In this, as in other matters, the want of funds has much interfered with the progress of the institution, for, although we have received many donations, notably the two paintings presented by Mr. Orrock, the Raphaël engravings given by Bishop Gibney, etc., as yet there are no endowments. Perhaps some day a citizen of Perth will follow the example of Dr. Swiney, who bequeathed £5,585 1s. 6d. in Consols to the trustees, to provide for an annual course of lectures on geology in the British Museum, and this is only one out of many benefactions. The income, £150, thus provides for fifteen lectures every year. Here we have to rely on the generosity of the lecturers.

The average attendance exceeds one thousand per week, of whom half come on Sunday afternoons. The visitors may be thus classified :—Prospectors and others who come to learn all they can about the natural resources of the State, to compare and name specimens they have found, students who are taking definite lines of study, with these I include local and foreign scientists, also the art students and craftsmen who make studies from the casts, etc. ; thirdly, and most numerous, are the general public, to whom the collections provide rational recreation of an elevating character. Of these latter, children are amongst the most desirable, for their minds are receptive, and they think over what they have seen to a much greater extent than their elders do, as is shown by the number of small specimens they bring. If in only a few of them it eventuates in their taking up, as a hobby even, some branch of natural history,

it will afford them endless enjoyment, and they will never join in the painful cry we so often hear, "How are we to kill time?" The main objects of local museums are: (1) To provide rational recreation of an elevating character to the ordinary visitor; (2) to provide an educational institution accessible to all classes; (3) to provide a home for local objects of interest, zoological, geological, antiquarian, etc.; (4) to contain specimens of all manufactures resembling those produced in the district, and of the raw materials used in their production. This in a country where manufactures are in their infancy is of great value. Art galleries can only be added in large and wealthy towns, or by the munificence of wealthy local residents, but examples of black and white drawings, etchings, engravings, etc., can be obtained at a very moderate outlay, and more important works may be secured on loan from the National Museum or private people, where proper accommodation is provided for their safe custody and exhibition. I have good reason to believe that if a similar Act were introduced into parliament it would meet with unanimous support from the goldfields as well as from the other urban and the agricultural representatives. The committee of this institution would aid in every way possible, such as supplying typical specimens of minerals and ores, examples of birds useful and harmful to the agriculturist, and in many other ways too numerous to mention. The local museums, while under local management, should be in touch with the National Museum for mutual help and support. The isolation of Western Australia has been a great drawback by hindering personal intercourse between the directors of the Australasian museums. The Museums Association, founded in 1888, by its annual conferences and its monthly journal has been a great help, for it publishes details of all improvements made in everything connected with museum work, and by its means I hear of many things that I should not otherwise ascertain, notwithstanding that I am in correspondence with the directors of most of the great museums of the world.

Museum Publications.

THE ZOOLOGICAL BULLETIN OF THE DIVISION OF ZOOLOGY OF THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE. Vol. V. Nos. 3 and 4. July and August, 1907.

The economic zoologist evidently rightly considers that it is as necessary to impart information on the systematic relationships and structural characters of insects generally as to deal with isolated units, and therefore once more returns in bulletin No. 3 to the subject of a general systematic study of insects with which he left off in the June bulletin of last year. Taking the hemiptera, the writer first deals with the general characters of the order, and then describes the families of the Cicadæ or locusts, the lantern flies, frog and leaf-hoppers, and the plant lice. The Aphididæ naturally receive generous treatment, their general life history being fairly fully dealt with, whilst a good illustration is given of the famous or infamous woolly aphis, which is spreading all too surely in this country. Considered as a general account, freed from the usual load of scientific terms, the author has produced a useful and valuable paper which can be easily followed and understood. The eight full page plates are very good. The rest of the bulletin is occupied by notes on the grain moth, rose bug, flea beetles, and sprays and spraying. Bulletin No. 4 deals with a subject scarcely deemed worthy as yet, in this country, of serious consideration, viz., that of governmental supervision of nurseries of fruit and forest trees. The State of Pennsylvania now requires that all nurseries shall be inspected annually, and that plants be not sent out to growers or imported without a certificate of inspection. This is, we believe, a wise provision, which will, if thoroughly carried out, do much to circumscribe plant and insect attacks and prevent spreading. We would commend a consideration of similar methods to the Board of Agriculture, in order to stop the lamentable spread of not a few plant diseases which have become all too rife of late years.

GENERAL CATALOGUE OF SHOW CASES, FITTINGS, BOOK CASES, STANDS, &c., executed for H.M. Government at the British and Natural History Museums. William Cubitt & Co., 258, Gray's Inn Road, London, W.C.

Those who have been interested in the papers and discussions on museum cases at the Bristol meeting of the Museums Association, as published during the past year in the *Museums Journal*, will be glad to learn that Messrs. William Cubitt and Co. have recently produced an atlas of 80 plates illustrating the more important of the cases that they have made for the various departments of the British Museum.

The book, which is cased in cloth, measures 10 inches by 12 (25 by 40 cm.), and weighs 2lbs. 12oz. It is not technically published, but Messrs. Cubitt will be happy to send a copy to any curator who may be interested.

In addition to the 80 plates are four large half-tone reproductions of photographs showing various workshops of the firm.

Although the plates are unaccompanied by anything more than the briefest description and outside measurements, they may nevertheless serve to give many valuable suggestions to those who are furnishing new museums. In many instances the lids or doors of the cases have been opened so as to expose the interior fittings. Details cannot easily be seen; but it is hardly necessary to say that cases made for the British Museum are provided with locks, hinges, and dust-proof devices of approved character.

Most of the cases are a combination of wood and metal, but a few upper shades of lighter appearance made in metal alone have recently been introduced. These are chiefly to be seen at the Natural History Museum, protecting bird groups; but we observe that Plate No. 50 illustrates a table-case with its lower part enclosed with doors, while the upper part is entirely made of bronzed metal and glass. This particular case is used for the exhibition of bronze figures. When, as in this instance, the ornament of the lower part is unobtrusive, the light appearance of the upper part is by no means displeasing.

One would like to have had the dates of manufacture attached to these plates, so that one could appreciate the gradual evolution that has certainly taken place. Some of the cases illustrated are hardly such as would be made nowadays. Others, again, although indeed of recent date, have been found wanting in some respect, and are being replaced by better models.

The photographs seem to bring out faults in design which may perhaps be less obtrusive when the actual cases are seen in the galleries. For example, in such an illustration as that of the Waddesdon Room at the British Museum (Plate 1), one sees nothing but the highly elaborate and massive legs of the cases, while another case in the same room (Plate 2) has a base overloaded with ornament, which must surely distract attention from the delicate objects displayed in its upper part.

The high pitched desk-cases used in the Geological Department (Plates 20 and 59) are shown resting on legs far too small for the weight they have to carry, while no explanation or illustration leads the reader to understand that this was a temporary arrangement, and that the legs have now been replaced by cubes containing interchangeable drawers.

Illustrations of interchangeable drawers, as recently described in the *Museums Journal* (Vol. VI., pp. 330-335, April, 1907), may be seen in Plates 68, 69, 70, and 79. Some of these used in the insect room of the Natural History Museum have the drawers glazed both at top and bottom, so that the insects can be seen from both above and below. The illustrations, however, do not show the ingenious method by which the insects are fixed in the drawers so as to permit of their being used in this manner.

Here also may be seen (Plate 74) the admirable cases for the exhibition of the Tapling Collection of postage stamps, as described in the *Museums Journal* (Vol. VI., pp. 399-402, June, 1907).

Messrs. Cubitt and Co. doubtless have their own object in issuing this handsome catalogue, and, while we are grateful for the opportunity of seeing photographs of these excellent cases, we cannot help wishing that the plates were accompanied by rather more detailed explanations, and especially by some critical remarks by those who have had practical experience of their use. An account of the cases in the various Departments in the British Museum, combining the experience of the designers, the makers, the curators, and the public, and illustrated by photographs and drawings, would be a contribution of the highest value to technical museum literature.

General Notes.

REGISTRATION.—In a recent number of the *American Naturalist* (Vol. xli., pp. 77-96), Mr. L. B. Walton of Kenyon College, Gambier, Ohio, has an elaborate and useful article on accession-department and reference-catalogues, in which use is made of the card system. Those who are thinking of adopting an improved method of registration and cataloguing are recommended to consult this practical article.

COLLECTION AND PRESERVATION OF DIATOMS FROM SEA DREDGINGS.—In the introduction to the "Report on the Diatoms of the Albatross voyages in the Pacific Ocean, 1888, 1904" (Contribution U.S. National Herbarium, Vol. x., part 5; 1907). Mr. Albert Mann describes the method of washing marine ooze for the extraction of diatoms and radiolaria, and the way in which he mounts the specimens on slides so as to render them available for future reference.

NEW METHOD OF MOUNTING FUNGI.—According to *Science*, a new method of mounting culture-grown fungi for preservation in the herbarium is described in the July number (1906) of the *Journal of Mycology* by George G. Hedgcock and Perley Spaulding. Pure cultures on rather stiff agar supply the specimens, which are taken out in little blocks with a layer of agar adhering, dried on stiff cards, and then protected by pasting on perforated pieces of thick cardboard of the proper size, the specimens occupying the opening. These cards may be attached to her-

barium sheets, and preserved in the usual way, or they may be kept for easy reference in the manner of library cards in ordinary card cases.

INTERNATIONAL ASSOCIATION OF MEDICAL MUSEUMS.—

An Association with the above title has recently been constituted, and held its first Meeting at the Army Medical Museum, Washington, D.C., on 6th May, 1907. The idea originated in America, and those who attended the meeting were chiefly from the United States and Canada. The membership, however, includes representatives of medical museums in the British Isles, Germany, Austria, Denmark, Switzerland, Italy, Egypt, and Australia; a good list, but with some notable exceptions. The following officers were elected:—President: Major Carroll, Army Medical Museum, Washington, D.C.; First Vice-President: Prof. W. G. MacCallum, Johns Hopkins, Medical School, Baltimore; second Vice-President: Prof. J. Ritchie, Oxford University; third Vice-President: Prof. J. Ludwig Aschoff, University of Freiburg, Germany; Corresponding and Recording Secretary and Treasurer: Dr. M. E. Abbott, McGill Medical Museum, Montreal, Canada. On the motion of Prof. Osler, it was decided to issue a Bulletin. Through the kindness of the Secretary we have received a copy of the first number of the Bulletin, which is said to be "printed by the courtesy of the Surgeon-General of the U.S. Army," and is issued at Washington, 15th May, 1907, but which does not appear to be published. From the introductory statement we extract the following:—"To promote and encourage the building up of collections in localities where, in the presence of a rich pathological material a museum does not yet exist; to foster the growth and extend the scope of existing museums, by facilitating the interchange of specimens along special lines; to aid such institutions as are labouring under unfavourable conditions and difficulties; to increase the usefulness of the organised museum as a teaching medium, and, both by improved methods of classifying and cataloguing and by the proper preservation of specimens, to develop such to their highest points: these are the functions of the newly organised Association." The qualifications for membership are still under consideration, but the general idea seems to be that no one should be eligible who is not an active worker along museum lines, and of good professional status, that a single vote only should be permitted to each museum, and that the council should be selected from the voting

representatives. The entrance fee is two dollars and the annual subscription for the year ending May 1st, is also two dollars. The next meeting is to be held in connection with the Congress of Tuberculosis in Washington, D.C., in October, 1908. The main object of the Bulletin appears to be for museums to advertise their wants and to arrange for exchanges. The present number contains an appeal for specimens for the Medical Museum of the McGill University, Montreal, the greater part of which was destroyed by the recent disastrous fire, as duly recorded in the *Museums Journal*. Medical museums have a field so different from that of other museums, and have such special wants, that the segregation of their officers into an Association distinct from a general Museums Association, such as ours, is only natural; and as a sign of the greater importance now being attached to museum work we welcome the foundation of this new international organisation.

AT HOME.

APPOINTMENT.—Mr. Adam Sedgwick, M.A., F.R.S., has been elected professor of zoology and comparative anatomy at Cambridge, in place of the late Professor Alfred Newton.

BRITISH MUSEUM MODEL OF EURYPTERUS.—In the upper Silurian rocks of the island of Oesel, in the Baltic, are found the fossil remains of an arthropod called *Eurypterus Fischeri*. This animal is of interest as one of an extinct group of arthropods that appear to have been allied to the modern *Limulus* or king-crab, as well as to the scorpions. These particular fossils have a further interest in that the chitinous substance of the outer coat of the animal has been preserved unaltered in chemical and physical composition. Thus Professor G. Holm, of Stockholm, has been able to dissolve the remains out from the rock by means of acid, and to mount them on glass slides in Canada balsam. On the preparations thus obtained, he based an elaborate description published in the Memoirs of the Academy of Science, St. Petersburg (Ser. 8, Vol. VIII., No. 2; 1898). It can now be said that the structure of this species is known better than that of any other extinct arthropod. Several of Professor Holm's preparations preserved in the geological department of the British Museum are quite marvellous, and it is difficult to believe that one is looking at a fossil at all, still more one dating from the Silurian epoch. The perfection of these specimens and the

interest of the animal suggested to members of the staff of the British Museum (Natural History) the advisability of preparing a complete model of it, and such a model in coloured wax, of about twice the natural size, has now been made under the direction of Dr. W. T. Calman and Dr. F. A. Bather by Mrs. Vernon Blackman, whose beautiful models of plants, of the parasite of malaria, and of the tsetse fly are well known to all visitors to the Natural History Museum. The model was first placed on exhibition on the occasion of the visit of foreign geologists to the Centenary of the Geological Society of London, and evoked their enthusiastic admiration. It measures 23 by 15 cm. The wax of which it is made will stand any extreme of temperature likely to be met with in a museum, and the colours are believed to be quite permanent; they are based upon those of the recent *Limulus*, and Sir Ray Lankester has shown great interest in their selection. The model, which, it may be mentioned, has been subjected to the careful scrutiny of Professor Holm himself, certainly looks quite as natural and life-like as any specimen of a recent arthropod exhibited in the museum. The Geological Department hopes to have a limited number of copies of this model, which it is prepared to exchange with other museums. Naturally, a model of this nature, which has taken a very long time to make, demands an exchange of considerable value, but for information on this matter inquiries should be addressed to the Keeper of the Geological Department, Natural History Museum, Cromwell Road, London, S.W.

THE UNIVERSITY MUSEUM, ST. ANDREW'S.—At the July meeting of the University Court of the University of St. Andrew's intimation of a gift of 3,150 spirit preparations, large and small, from Professor McIntosh, the honorary director of the University Museum, was made; they consisted (1) of a named series (1,150 preparations), illustrating the marine zoology of St. Andrew's collected during the last 50-60 years by the late Mrs. McIntosh, of 13, Queen's Gardens, St. Andrew's, and her daughters, one of whom (Mrs. A. Günther) used these types in life for many of her original coloured drawings. The series stretches from the protozoa to fishes, as described in the "Marine Invertebrates and Fishes of St. Andrew's," (A. and C. Black), 1875. Many of the specimens are unique and of more than local interest. (2) Of a glazed cabinet containing a carefully-mounted series of prepara-

tions (95 in number) illustrating the development and life-history of the salmon of the Tay. The ova were obtained in the old days (1861) of Stormontfield Ponds, hatched in a small glass tank, and the young reared to the pan-stage of 3-4 inches. The food and parasites of the salmon are also represented. (3) A reference series (265 in number) of spirit preparations made during the trawling expeditions of 1884 (in connection with Lord Dalhousie's Commission), showing not only the small fishes and parts of the adults of particular grounds, but their invertebrate companions, besides the contents of the tow and other nets at the various seasons. (4) A general zoological collection, in spirit, from the British seas—from Shetland to the Channel Islands, and from H.M.S. "Challenger"—besides various land forms. In this collection are invertebrates, fishes, amphibians, reptiles, birds, and mammals—to the number of 1,595 preparations—together with various skulls and skeletons, e.g., sturgeon, ca'ing whale, pig, ox, llama, and horse. (5) Of a typical series (45 in number) of botanical preparations in spirit, including a number of different pitcher-plants and their insects, *Drosera*, etc., mounted mainly for features of zoological interest. Many of the foregoing spirit preparations have been in the University Museum and in the natural history class for a quarter of a century, and they now become the property of the university. It is earnestly to be hoped that the long-looked-for extension of the museum and the natural history department will soon take place. It is nearly a quarter of a century since plans were drawn out for this purpose, and yet the collections have within this period enormously increased in number and value. The museum, indeed, is largely a store-house, for neither classification nor display can thoroughly be carried out in its crowded shelves; and it further has to find accommodation for a practical class in one of its apartments.

EGYPTIAN ANTIQUITIES.—An exhibition of Egyptian antiquities found by Professor Flinders Petrie and students of the British School of Archæology in Egypt, at Gizeh and Rifeh, has been held at the University College, Gower Street, London. At Gizeh, about a mile south of the Great Pyramid, many cemeteries have been excavated, yielding remains of the first three dynasties before the pyramid kings, while in the cemeteries of Rifeh very valuable finds were made in the shape of a series of "soul-houses" made of pottery (to be placed upon the graves for the shelter

of the soul), and a fine group of coffins, boats, and figures of the twelfth dynasty. Of the houses few have been previously discovered, and none, possibly, by scientific excavations. The collection on exhibition was of a comprehensive character, showing the gradual elaboration of the model dwellings from a little hutch till they become houses of several compartments, with upper storeys and verandahs on the roofs, and staircases to give access to them, while inside were a couch, chair, jars, corn bins, and other pieces of furniture. This series gives for the first time a view of the elevations of the ordinary houses of the country at a date prior to 3000 B.C. They are much less elaborate than the views of the great mansions occasionally figured in tomb paintings, and are evidently made in direct imitation of the details of an ordinary dwelling. In the tombs were also found two perfect models of boats, somewhat similar to those now used. One with the mast down and the sail packed upon it, is evidently being rowed down the Nile, and the look-out men and steersmen are closely wrapped up to face the north wind. The other boat has the mast up, and the crew are hauling up the yard. Here the look-out and steersmen are clothed only in a kilt. Each boat has a cabin, and the steering oars are perfect. The steersman holds the guiding pole, attached to it so as to rotate the great oar for steering as is the custom on the boats of Lake Como at present. A large collection of vessels of alabaster, pottery, &c., implements, figures and other relics was also on view.

MUSICAL BEQUEST TO THE BRITISH MUSEUM.—Miss Harriet Chichele Plowden, of Albion Villas, Folkestone, who died on June 26th, aged 76, left the original MSS. of Beethoven's first sonata for violin and piano and Mozart's ten quartets to the British Museum. The ten great string quartets of Mozart may be considered as amongst the highest achievements of the master, and as, perhaps, the most important and most widely known and appreciated of those of his works which he wrote for chamber music.

MANUSCRIPTS FOR BURNS'S COTTAGE.—Mr. W. H. Dunlop, of Doonside, secretary to the trustees of the Burns Monument, has recently purchased some very valuable original Burns's manuscripts, which will shortly be added to the collection of Burns relics and MSS. at the cottage. Perhaps the most interesting of the new manuscripts is one secured on March 27th at the sale of the library of the late Mr. J. B. Murdoch, of Capelrig, Renfrewshire. It is an

original holograph MS. in the hand of the poet, written on excise paper. The manuscript takes the form of a poetical epistle; one full page (folio), and is written "To Captain Gordon on being asked why I was not to be of the party with him and his brother Kenmure at Symes." At the sale of a selected portion of the library of the late Mr. George Gray, clerk of the peace for the county and city of Glasgow, held in London on March 20th, Mr. Dunlop was successful in securing some Fragments of Manuscript Songs, some of which are set to manuscript music. A number of these songs are in Burns's handwriting, and others have very interesting notes by him in his autograph. At Sotheby's in London, on March 16th, the famous MS. of "Scots wha hae" was purchased, and has been on view in the cottage for some time now. At the same sale Mr. Dunlop was fortunate in securing the very valuable autograph manuscripts of poems, which were the property of a grandson of the late Mr. A. S. Petrie, formerly of St. Mark's Square, Regent's Park, London, who formed the collection.

LIVING OKAPIS.—Sir Edwin Ray Lankester was able to show to the zoologists attending the meeting of the British Association photographs of a living specimen of the Okapi, obtained in the extreme north-western corner of the Congo State, and now it is announced, on the authority of a Belgian sporting journal, that not only has the Okapi been seen, but a young animal of the genus has been captured alive by the natives, and taken to Angu, a post in the north of the Congo State on the Welle River. At the time of its capture last April, this specimen of the Okapi was only about a month old. Every care has been taken of the animal, and, according to the latest advices, it appeared to be bearing its captivity without ill-effects. The Angu district would seem to be a favourite haunt of the Okapi, for it was there that the Alexander Gosling expedition first heard news of the animal, and there that Lieutenant Boyd Alexander's Portuguese collector trapped the specimen now in the British Museum (Nat. Hist.).

VICTORIA AND ALBERT MUSEUM, LONDON.—Certain changes have been made in the regulations for admission to the Victoria and Albert Museum, though these are not to take effect until the first of January next. The government are still to be careful of the sixpences, in spite of the recommendation of the commission held a few years ago that this charge for admission should be abolished. Thursday will, in future, be one of the free days instead of Tuesday,

as at present, and from the beginning of 1908 the museum will be open from 10 in the forenoon until 10 at night on Mondays, Thursdays and Saturdays, though admission to the libraries will be by ticket only. On Tuesdays, Wednesdays, or Fridays the museum will be open from 10 in the morning until 4 during the months of January, November, and December, until 5 during February and October, and until 6 from March to September, inclusive. But these, being students' days, a charge of 6d. for each person is to be made for admission. On Sundays the building is open from 2 in the afternoon till 4 in January, November and December, till 5 in February and October, till 6 in March, April and September, and until 7 from May to August.

NATIONAL GALLERY, LONDON.—The portrait of the Marchesa Cataneo, by Vandyck, the companion picture to the portrait of the Marchese Cataneo, lately purchased by the trustees, has now been added to the National Gallery, and is hung in Room XIII., No. 2,144.

THE GEOLOGICAL SURVEY.—The Board of Agriculture and Fisheries give notice of the publication of the Summary of Progress of the Geological Survey for 1906. The summary of progress for 1906 contains particulars of the work carried on in the coalfields of South Wales, Derbyshire, and in the mining district of Cornwall, and among the palæozoic and more ancient rocks in Cornwall, Pembrokeshire and the Highlands. There are special contributions on the scapolite-bearing rocks of Scotland, minerals produced in Cornwall, and well-sections of Middlesex. Copies may be obtained from any agents for the sale of ordnance survey maps, or directly or through any bookseller from the Ordnance Survey Office, Southampton, price 1s.

A CURIOUS BEQUEST.—The will of Miss Mary Ann Mason, of Ealing, a member of an old Leicestershire family, contains the following bequest :—I also give to the Corporation of Nottingham for the art museum the last mule canary that travelled from Nottingham to the "Cross Keys." Wood Street, Cheapside, on the (almost) last "Old Times Coach," driven by "Old Joe Pearson" (as the next visit I made to Loughborough, Leicester, was by railway). Also the two gadflies which are also in the same glass case as the canaries, and were caught at Prince Albert's Exhibition, in 1851, at Hyde Park. Also some curious trimming material of a Court dress of the 17th century, and an old-fashioned bodice of that century.

GLADSTONE MUSEUM.—The grounds of Dollis Hill House, Gladstone Park, Willesden, are to be thrown open to the public, while the house will probably be used as a museum.

THE FOOTPRINTS OF THE ROMANS IN TYNEDALE.—Excavating operations have been started upon the ancient Roman Corstopitum, about a mile to the west of Corbridge, on the north bank of the Tyne. The site is easy to excavate, as it has not been built upon since the Roman era, nor has it been systematically excavated. It is further a site of special interest in that it was occupied in Roman times not by a fort like Housesteads, or the Chesters, but by some form of town. Of such a town there is no vestige north of York and Aldborough, except at Carlisle, near the west side of the Roman wall. During the summer of last year the Northumberland county history committee undertook some excavations. The work was extremely limited, but the report presented was so re-assuring and promising that the project for the ultimate and complete uncovering of the site has now been undertaken by a committee, with the Duke of Northumberland as president and chairman of the executive committee. The committee is representative of local interests and learning, as well as the whole field of Roman scholarship in England. To thoroughly do the work, it is estimated that the cost will amount to £2,000, and it has now begun under the personal supervision of Mr. C. L. Woolley, B.A., of the Ashmolean Museum, Oxford. Altogether about 30 acres will be uncovered, and the excavations will be continued over the summer months for five years. A nominal charge is made for inspection, the proceeds going towards the excavation fund.

ROMAN AND MEDIEVAL REMAINS IN DERBYSHIRE.—Interesting Roman and medieval remains have been discovered at Rainster Rocks, six miles west-south-west of Matlock and one mile west-north-west of Brassington. These rocks are only half a mile from Longcliffe, where, in the "bone caves," a great quantity of animal remains, including those of the lion, bear, and elephant, were found. Rainster Rocks rise in tier on tier of gleaming dolomitized limestone, separated by terraces of grass; and excavations on one of these terraces were rewarded by the discovery of Roman coins—"second bronze" of Aurelian, A.D. 270-75; "third bronze" of Claudius Gothicus, A.D. 268-70; (apparently) "third bronze" of the period of the "Thirty Tyrants," A.D. 250-285; another coin, presumably Roman. There were also

some fragments of Roman and medieval pottery. Excavations were afterwards begun at the foot of the rocks, where two noticeable turf terraces about 20ft. broad run parallel to the face of the rock for a distance of 150ft. The cutting of a section across the lower terrace led to the discovery of a Roman hinged bronze fibula, and of several fragments of pottery. At right angles to the terraces, and starting from them, two parallel turfed walls, separated by a distance of 16ft., run outwards for a length of 150ft. Excavation close by one of these walls (which are about 1ft. high) showed distinct traces of a "metalled" road; and, as was conjectured, the mounds form its boundaries, the inner sides of the rocks composing them having been trimmed and interstices between blocks having been filled in with smaller blocks. Rainster Rocks are only about four miles from the Roman way, which, starting near Buxton, passes Newhaven and the "Arberlows," running in a direction south-south-east.

A ROYAL DIAMOND.—There has just been placed in the central hall of the British Museum (Nat. Hist.) a facsimile model of the "Cullinan" diamond, which the government of the Transvaal have decided to present to King Edward. In the same case there are also exhibited models of the "Kohinoor," "Excelsior," and "Pitt" or "Regent" diamonds. In connection with the price at which the Transvaal government proposes to acquire the "Cullinan" diamond, it is of interest to note that, according to the official label attached to the "Pitt" stone, it was bought for £20,400 by Governor Pitt, and subsequently acquired, still in its rough state, by the Duke of Orleans, then Regent of France, for two million francs (about £80,000), and, after cutting, found a place amongst the Crown jewels of France. The weight of the "Pitt" diamond before cutting was 410 carats; that of the faceted gem 136½ carats. The "Cullinan" diamond weighs, in its rough state, 3025½ carats (about 1½ lb. avoirdupois).

PICTURES FOR THE LEEDS ART GALLERY.—Until the financial resources of Leeds have been considerably strengthened it will be impossible for the corporation art gallery committee to make any large purchases for the purpose of improving the city's permanent collection of pictures. From the spring exhibition some works have been purchased for this gallery. These include "The Farm Pond," a landscape by F. W. Jackson; "Cloud Shadows," by W. L. Bruckman; "Milking the Goat," by Harold

Knight, a Yorkshire artist ; and " A Bazaar in Cairo," by H. Trier. In addition there is a water-colour drawing by Katherine Cameron, and some interesting black and white work. The committee have also commissioned Mr. Spruce to execute in bronze his powerful head of a blind man.

GLASGOW ART GALLERY.—The corporation of Glasgow has added to their collection an important picture by Sir John E. Millais at a cost of £1,000, Messrs. J. B. Bennet and Sons, Glasgow, being the vendors. The painting is entitled " The Ornithologist," and was exhibited as " The Ruling Passion " in the Royal Academy in 1885.

BRITISH MUSEUM REPORT.—In his annual account of the work and progress of the British Museum Sir E. Maunde Thompson, the director and principal librarian, chronicles a further marked decline in the number of visitors to the British Museum, compared with the notably depleted figures of 1905. " It is a matter for regret," remarks the director, " that a further decline in the number of visits to the museum has to be recorded for the year 1906. The total number was 691,950, a falling off of nearly 122,000 from the number in 1905. Nor has the decline been confined to weekday visits, as it was in the previous year. The 57,738 visits on Sundays were less by 4,369 than those in 1905. We must go back to the year 1900 with its 689,249 visits before finding a total to compare with that of the year 1906. At the same time, it is an indication of a steady growth of intelligent interest in the collections that while the numbers of visits decrease the sale of guide-books generally tends to increase. The number of visits of students to the reading room has also been reduced by 2,000, the total for the year being 212,997, as against 214,940 in 1905. The daily average was 702. During the year effect has been given to the scheme of the British Museum extension, which is projected to occupy in the future the site of the lines of houses on the north, east, and west sides of the museum, which were purchased in 1895. A building to form a range of galleries connected with the northern portion of the present museum buildings is now being erected upon the site of demolished houses which formed the south side of Montague Place, under the control of the First Commissioner of his Majesty's Works, Mr. John James Burnet, A.R.S.A., being the architect to whom the work is entrusted. The building is to consist of a basement and a sub-ground floor, for storage ; a series of ground floor galleries, for expansion of the library ; a

mezzanine to be arranged in studies and students' rooms, and a suite of exhibition galleries on the upper floor. The means for the work are provided from funds partly bequeathed by the late Mr. Vincent Stuckey Lean and partly voted by parliament. A first contract for the construction of the basement and sub-ground floor was entered into in April, when work was commenced. Among the more important additions to the several departments made during the year the director specially mentions that the department of printed books has been fortunate in acquiring as many as 246 Incunabula, or books printed before the year 1501, chiefly of German and Italian origin. This accession, he notes, brings the museum collection of Incunabula into the front rank, if it does not actually place it at the head of all collections in national libraries, duplicates being excluded from calculation. The department of manuscripts has made notable additions to its collections. By gift of his Majesty the King it comes into possession of two Greek papyrus rolls from Herculaneum, which formed part of the series presented by the Neapolitan government to the Prince of Wales in 1803-6, five of the same series having been given to the museum in 1865 by her late Majesty Queen Victoria. Other valuable additions to the departmental collection of Greek papyri have been made by a donation from the Egypt Exploration Fund and by purchase. The department has also acquired two valuable MSS. of Chaucer's "Canterbury Tales," and a volume of English Metrical Romances of about the year 1400; as well as the official diplomatic correspondence of Charles Lord Whitworth, from 1702 to 1725, and the political and private correspondence of the Marquis Wellesley, from 1797 to 1842. The department of Oriental printed books and manuscripts has secured some important Coptic MSS., and has added some further examples to its fine collection of Arabic MSS. of the thirteenth and fourteenth centuries. The department of prints and drawings has purchased an interesting series of portraits of eminent persons of the nineteenth century by Henri and Rudolf Lehmann, a selection of which is exhibited in the King's library. The very important collection of Japanese woodcuts printed in colours, which was formed by Mr. Arthur Morrison, has also been added to the department. To the department of Egyptian and Assyrian antiquities are added a remarkable statue of Sen-Mut, the architect of the Egyptian Queen Hatshepsut, about 1550 B.C.; a large series of scarabs and

a number of miscellaneous Egyptian antiquities, presented by the Egypt Exploration Fund. Among the Babylonian and Assyrian antiquities are a remarkable historical inscribed cone of a King of Babylon, about 2145 B.C.; series of inscribed Babylonian tablets of 2400-2000 B.C.; and some very early and rare cylinder seals. To the department of Greek and Roman antiquities is added an interesting series of Greek bronzes of the best period; and among the many donations to the department are a series of casts of fragments of sculpture from the frieze of the Parthenon, presented by the Greek government; a rare series of votive offerings, of the pre-Roman period, found in Spain and given by Mr. Horace Sandars; and a group of Greek vases, the gift of Sir Henry H. Howorth. The department of coins and medals has been enriched by a most important donation from Dr. F. Parkes Weber, of Greek and Roman coins and of mediæval and modern, British and Colonial, and Oriental coins and medals, making a total of upwards of 5,500 pieces.

ABROAD.

APPOINTMENT.—Mr. Norman B. Kinnear, for some time past an honorary assistant in the natural history department of the Royal Scottish Museum, Edinburgh, has been appointed keeper of the museum of the Bombay Natural History Society, and will shortly proceed to India to take up the appointment. Mr. Kinnear is a great-grandson of the distinguished naturalist, the late Sir William Jardine, Bart.

MELBOURNE ART GALLERY.—The trustees of the Melbourne Art Gallery, which already possesses several beautiful art treasures, have lately purchased "The Bent Tree," by Corot. The price given for the picture is stated to be £5,750.

VANDALISM AT THE LOUVRE, PARIS.—At the Louvre, last month, shortly before the museum was closed, a girl stabbed a picture by Ingres entitled "La Chapelle" with a pair of scissors, the eyes of the Pope and the faces of three cardinals being cut through. On being questioned, the girl said she wanted to be arrested. M. Dujardin-Beaumetz, Under-Secretary of State for Fine Arts, has since had a conference with the conservators of the museum and the commissaries of police as to what measures can be taken to put an end to such mutilations.

A NEW MUSEUM FOR UPSALA.—An endeavour is being made to establish at Upsala a museum for the history of culture in Northern Sweden.

BERLIN MUSEUM OF ETHNOLOGY.—Dr. Ankermann, assistant in this museum, has been sent to the Cameroons to make explorations, the government having contributed £1,000 towards the expenses.

EXHIBITION AT BRUGES.—A collection of objects to illustrate the order of the Golden Fleece, one of the oldest orders of chivalry, has been brought together in the Grand Palace near to the Belfry of Bruges. The exhibition includes about 250 portraits of great historical interest, miniatures, manuscripts, books and bindings, tapestries, embroideries and numerous suits of armour of different periods.

NEW ART MUSEUM FOR NEW YORK.—New York intends to possess the finest art museum of the world, a bill authorising an annual expenditure of £150,000 for a period of ten years, so that this consummation may be reached, being contemplated. A lecture hall costing £80,000 will be included in the proposed enlargement, Messrs. McKim, Mead and White being the architects. The building when completed will cover eighteen acres, and will have cost something like £4,400,000.

BEQUEST TO THE LOUVRE, PARIS.—A windfall has come to the Louvre which will be useful, as the museum, though possessing perhaps one of the finest collections in the world, is one of the poorest in funds for upkeep and for purchases. M. Audeoud, a Frenchman who died recently at Cairo, has bequeathed all his fortune, estimated at £500,000, to the State for the Louvre. He has also left a valuable library of manuscripts to the Bibliotheque Nationale, and a collection of pottery to the Sevres Manufactory Museum.

PROPOSED TOURIST AND SPORT MUSEUM IN STOCKHOLM.—In connection with various exhibitions that have been held of late, the Swedish Tourist Bureau, with the help of numerous friends, has brought together a fine collection of objects connected with travel and sport—a collection that has on more than one occasion obtained the first prize at exhibitions. In order to prevent this collection being dispersed, it is proposed to establish a permanent museum in the Idrottspark, or Sports Park, of Stockholm. The material gathered together in this museum will serve to furnish future exhibitions in foreign countries.



EAST CLIFF HALL, HOUNSMEAD.

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Russell Cotes Art Gallery, Bournemouth.

NATURE has been so lavish in bestowing her favours on Bournemouth as to engender a feeling that man was not called upon to do anything to add to the charms of that attractive place. Perennial verdure has given it the popular title of the "Evergreen Valley," while its situation, sheltering it from the more sinister aspects of nature, has added recognised healthfulness to its inherent beauty. Yet, during this month, two events of supreme importance have been brought about, one by civic enterprise, the other by a noble act of individual generosity, that will confer lasting benefits on the place, alike for the pleasure of visitors and of the permanent inhabitants. Though not allied in character, the two events were associated in time.

The mayor of Bournemouth, at the luncheon which followed the opening of the Undercliff drive on November 6, made the following important statement :—" I have the authority of Mr. and Mrs. Russell Cotes to tell you that, subject to the arrangement of certain details for which I suggest we shall have to appoint a committee, they jointly and severally offer as a free gift to the town their private house known as East Cliff Hall, with a collection of pictures and other works of art, for the pleasure and enjoyment of their fellow ratepayers and visitors to Bournemouth, the property to be vested in the mayor for the time being and other trustees in a proper legal way, Mr. and Mrs. Cotes reserving only to themselves the right to use the house as a place of residence during their joint or several lives."

East Cliff Hall occupies a commanding position on a high part of the cliff overlooking the sea on the east side of

Bournemouth, in well laid out grounds, adjoining the Royal Bath Hotel. It was built within the last ten years, and conveyed by Mr. Russell Cotes to his wife, and has lately been their principal residence. In planning the Hall due consideration was given to the extensive collection of pictures which Mr. Russell Cotes already possessed, and while it makes a spacious home of comfort and beauty, it will readily adapt itself to the purposes of a museum of art. The main feature of the interior is a central hall, with a gallery running round it, providing wall space for a large number of pictures, illuminated by a top light. On two sides of this hall are the living rooms, with windows facing the sea, all of ample proportions to fit them for exhibition rooms, while similar rooms surround the gallery above.

Mr. Russell Cotes' collection of pictures is pretty widely known, through his generous loans to the art galleries of many of the principal towns of the kingdom. At various times he has lent pictures to London exhibitions, and the bulk of his collection has been exhibited at Glasgow, Sheffield, Liverpool, Oldham, Bath, Burnley, and other places. Changes have from time to time been made in the collection, and at the present moment it comprises about 300 paintings and water colour drawings, all in East Cliff Hall. It has not yet been definitely decided which of the pictures shall become the property of the town, and a few may be distributed amongst Mr. Cotes' family, though his well-attested public-spirited character is sufficient guarantee that Bournemouth will become the privileged possessor of his principal art treasures, both in quality and quantity. Among the more notable oil paintings are:—"Luther's Hymn," by Walther Firle, a striking picture, both in the beauty of its composition and the skill of its technique; "Aurora Triumphans," a large typical work by Sir E. Burne Jones; several fine landscapes by B. W. Leader, R.A.; sea piece by Henry Moore, R.A.; original study for Perseus and Andromeda, by Sir Frederick Leighton, R.A.; a similar study for "The Woodcutters," by John Linnell; "Judith," by Ch. Landelle; "The Shingle, Rye,"



EAST CLIFF HALL, MAIN GALLERY.

and other works, by David Murray, R.A. ; "The Home of the Water Lilies," by E. J. Gregory, A.R.A. ; "Slave Market," by James Webb ; "Psyche at the Throne of Venus," by E. Matthew Hale ; "Friends or Foes," by P. R. Morris, R.A. ; "A Highland Flood," by Sir E. Landseer, R.A. ; "St. Michael's Mount," by J. M. W. Turner, R.A. ; "Going to Church," by Thérèse Schwartze ; "Tick Tack," by Briton Riviere, R.A. ; "Ehrenbreitstein," and another painting, by J. B. Pyne ; "The Thames" and "Autumn Morning," by J. Aumonier ; several cattle pieces, by T. S. Cooper, R.A. ; "Approaching Thunderstorm, Picardy," by H. W. B. Davis, R.A. ; "The Palm Offering," by F. Goodall, R.A. ; "Good News and Bad News," by J. B. Burgess, R.A. ; "Ben Eay," by P. Graham, R.A. ; "Then to the Listening Ear," by E. Long, R.A. ; "Venus at the Bath," by Albert Moore ; "Weary," by E. Radford. There are also paintings by C. W. Wyllie, W. L. Wyllie, J. R. Reid, F. R. Lee, R.A., Keeley Halswelle, and many others, besides a nice collection of water colours.

The other collections are too varied and numerous to enumerate, many of them being gathered during extensive travels in various parts of the world, which are described in Mrs. Russell Cotes' charming book, "Westward from the Golden Gate." Oriental china, both recent and ancient, is very largely represented, and there is also a fine collection of artistic Japanese work, including a particularly good shrine. The general pottery collection includes many fine pieces of old Dresden ware, biscuit ware figures, and works from most of the important English potteries. There are also examples of silver and old Sheffield plate, miniatures, carved ivories, rare New Zealand and other ethnographical treasures, armour, metalwork, and a wide range of bronze figures and other objects. A notable feature of the collection is the statuary in marble, of which there are numerous life-size and smaller examples.

The Mayor, in announcing the gift, in order to give an impression of its magnitude and value stated that it was worth £40,000. From an intimate acquaintance with the

hall and its contents, we can confidently assert that such an estimate is not at all exaggerated. Brilliant Bournemouth so bountifully blessed will thus acquire a home of beauty and art that in many respects cannot be surpassed, giving to its inhabitants a source of delight that will not only add to the joys of their lives, but afford a means of culture and refinement that may not be without its influence on their civic rulers.

By kind permission of Mr. Russell Cotes we are able to give illustrations of the exterior of East Cliff Hall and its principal internal feature.

Some Uses of a Museum of Industrial Art.

By W. W. WATTS, F.S.A.

Victoria and Albert Museum, London.

[Read at the Dundee Conference, 1907.]

THE claims of museums of industrial art have, with some few exceptions, been recognised only in recent years: and indeed at the present moment, while the brighter attractions of a gallery of pictures have appealed to many provincial towns, there are yet many which see no necessity for establishing a museum of decorative art. There appear to me to be several reasons for this neglect: first of all, there is the difficulty, a very real one, of deciding what object such an institution should have in view; secondly, a failure to grasp to any adequate extent the far-reaching educational value of such a museum; thirdly, the association of such an institution with a collection of odds and ends huddled together and catalogued under that miserable word "curio;" and fourthly, the entire forgetfulness of the fact that the greatest craftsmen have not confined their skill to mighty productions, but have delighted to bestow labour upon the commonest object of every-day use, such as a door-handle or a drinking glass. Many other reasons will occur to the thoughtful mind.

What is perfectly obvious is that we have not by any means grasped the many-sidedness of a museum of art. Dr. Hoyle, in his presidential address at Bristol last year, said "Under the term 'museums of art' I include those institutions where the objects are regarded simply as material for æsthetic contemplation; where they are arranged so that each may be seen to the best advantage, and most surely produce its full effect of ministering to the cultivated enjoyment of the onlooker, without any regard to the increase or diffusion of knowledge." I submit, with all respect, that while this statement is to some extent true, it gives a very limited idea of the possibilities of such an institution. It is, however, only fair to add that Dr. Hoyle, a little later in his address, has a vision of a much more extensive use of these museums.

A North of England paper not long since, if I remember rightly, stated that the object of a museum and art gallery was enjoyment. I am not sure whether it was not amusement—in any case, the view was so narrow that it hardly justified the existence of the building.

To begin with, therefore, a museum of industrial art should, in its formation and development, have some definite object in view; the bow drawn at a venture may strike where the archer little meant, but a museum without a definite aim can hope for nothing except to become the dumping ground of well-intentioned people who wish to get rid of superfluous oddities. The object in view will naturally vary with the nature, history, and industry of the various towns. One aim should, I think, be common to all—the museum should illustrate the town or locality, its history, its trade, its manufactures; it should be the repository of everything of an artistic nature connected with the events, political, commercial, or otherwise, through which it has passed—of course, looking at them all from the standpoint of art. Imagine for a moment all the artistic productions of a locality which have to do with its political or social life through many centuries, its guilds, its societies, its trades, its

local customs, and you will have material enough for a local art museum. It is for this reason that I would urge the curators of local museums to form, for example, a collection of photographs of old buildings, streets, together with interiors of rooms, fireplaces, shop fronts, inn signs, and other fast-vanishing artistic relics of the past. And where a town has had a definite industry, surely there should be a complete record of all its productions from the earliest period of the particular craft until its disappearance or its latest development. It is a matter for congratulation that it is possible in the towns of the Staffordshire Potteries to find in the local museums examples of every factory and almost every known maker of the district from the time when pottery was first produced there. It is satisfactory to know that Sheffield is bent upon acquiring a collection of Sheffield plate sufficient to trace its development and various phases from its invention until its final supersession by electro-plating. It is interesting to hear that Bristol has set itself the task of forming a representative collection of Bristol china and glass, and that Cardiff contains the best collection of Swansea, Nantgarw, and other Welsh ware. And it is obvious that in towns with a distinct industry the local museum will aim at gathering together within its walls the corresponding productions of other countries and periods: the Pottery towns will gain largely from the comparison of their wares with those of an earlier period and different provenance, and the museum will become a centre of attraction for the majority of the inhabitants, or at least those who are interested in the welfare of their town. In such instances the lines of development are plain and unmistakable, and the usefulness of the museum assured.

The same suggestion applies to a museum in a town with a comparatively new industry. Take for example the case of Cheltenham, a town with a rapidly-increasing trade in ecclesiastical work generally, wood carving, sculpture, ironwork, and stained glass. The lines of the

development of the museum are clearly indicated by local requirements, and what is needed is determination and energy, first to convince the committee of the value of such development, so that the municipal purse may be opened a little wider, and secondly to seek for and purchase such examples or reproductions as may best serve the purpose.

If I may venture to suggest here in Dundee, a collection of printed fabrics of all countries would, I venture to think, form an addition to the museum of considerable interest and usefulness to the number of people who, I understand, are engaged in jute-printing.

But, you will say, of what use is a museum of industrial art in a town possessing no great history, and working in no artistic crafts? Well, at any rate, on general lines such a museum should help to show what to admire; it should help visitors to use their eyes and to develop their æsthetic taste; it should develop their appreciation of what is clever and beautiful, of the skill of the cunning workman, of the difficulty of the material with which he had to contend, and the almost insuperable obstacles which he had to overcome; in a word, it should induce them to think. How many people, looking at a marble statue, realise that it has been hewn from a block; how many, looking at a damask curtain, realise the immense machinery and the long labour required for its production. If you have awakened in some minds a proper appreciation of some point connected with a work of art, you have made progress.

You will argue further that the æsthetic faculty does not exist in the majority of visitors to your museums, or, if it exists, it is so untrained and undeveloped that you cannot appeal to it. Granted that this is the case, you may yet awaken in your visitors an interest in your art collections by approaching them through a different avenue: if the æsthetic faculty is small or non-existent, the historic faculty as a rule is fairly strong; if you cannot appeal on æsthetic and artistic grounds you may hope to

do so on historic grounds. If beauty of line and form and workmanship are not appreciated, you may at any rate hope to lead up to this perception by associating with an object or collection some definite and easily-grasped idea.

And this brings me to the real subject of my paper : and I ask, How many curators realise the wealth of historic evidence contained in a museum of industrial art ? Is it generally understood how extremely useful a museum may be in teaching history ? whether it be concerned with political changes, wars, social and domestic life, or manners and customs.

Let me explain what I mean. It is a matter of common experience with teachers of history that they too frequently find it utterly impossible to draw out the imagination of their hearers sufficiently to make them realise the conditions of life and their surroundings at a certain period. They are in the position of a painter who set himself the task of painting an historical picture ; he has some knowledge of the characters he has to represent, but he has to paint them in their proper environment, and this means accuracy of every detail—otherwise his picture will be incongruous and perhaps ridiculous. What is he to do ? He must find these details ; he must have the proper setting for his subject. He goes therefore to a museum of industrial art, where he hopes to discover enough to help him to put together a picture which at any rate shall be truthful and not marred by anachronisms. To give an example. Most of you will probably remember a celebrated picture in the Royal Academy exhibition of 1893, entitled " A Glass of Wine with Cæsar Borgia." Three things at least had to be accurate : the portraits, the costumes, and the details of the interior in which the scene was represented. It was possible to obtain from extant paintings or from portrait medals the characteristic presentments of the crafty father, Alexander VI., the dissolute murderer, Cæsar Borgia, and his callous sister, Lucrezia Borgia. The question of costume presented no

difficulty. But the details demanded careful attention. The artist visited the Victoria and Albert Museum, and there he found all of them—the wall-hanging at the back of the picture, the columns which divide it, the table-cloth, the chairs, the drinking glass in the guest's hand, the glass tazza on the table, and the ewer in the hands of Cæsar Borgia. Here is a painter utilising various works of art in a museum to build up a great historical picture ; and if he can do this, surely it must be possible for us, with the aid of objects of a bygone age, to build up many pictures in the minds of the people who frequent our museums ; it must be possible for us to teach history.

I have no doubt as to the result. Have you ever noticed the extreme interest taken by visitors to some old country house where perhaps there are rooms unaltered for a century or two ? Why are we so fascinated with a visit to Knole Park, or any historic house ? Surely because at a glance we can take in the environment of domestic life at a certain period. It would naturally be a most excellent thing if museums possessed furnished rooms illustrative of certain periods, and such efforts as those which are being made at Hall-i'-th'-Wood Museum, Bolton, Towneley Hall, Burnley, and Eastgate House Museum, Rochester, are deserving of all encouragement. But, unfortunately, these old houses are not to be found in every town ; nevertheless the interest in historic association exists almost everywhere. And if a furnished room is not available from which to glean our object-lesson, we will endeavour to obtain it from a single work of art.

Suffer me to give a few illustrations. Take, to begin with, one of the most simple examples for our purpose. Many of you are probably acquainted with that long strip of embroidery known as the Bayeux tapestry. Photographic and other reproductions are to be found in some of your museums. It is considered a work of art. How are you going to arouse an interest in it, most of your visitors regarding it as a weird curiosity, affording amusement from the bad drawing of the figures and from the

fact that in many of the groups the number of legs and arms seems to be independent of the number of heads. Consider it as an historical romance. In the written romance you may be interested in the story itself, or the history of the period in which the events take place ; or you may find your chief attraction in its literary style. The last, I venture to think, is confined to a few highly-educated people. So with this embroidery ; its æsthetic importance and its position in the growth of such work appeals to a very restricted number ; the story appeals to far more. But the light it throws on the history and customs of the time is immense, and although I doubt whether many who have seen it have viewed it in this connection, I am perfectly confident that it can be made of great interest, and of extreme value from an educational point of view. From it you may learn the architecture of the time, ecclesiastical and civil, the arms and armour of the day, costumes both secular and ecclesiastical, manners and customs in eating and drinking, amusements and games. This is a simple example which speaks for itself, and all that is needed is a careful look with open eyes.

With works of art which have belonged to historic personages there is also no great difficulty, the imagination at once bringing before the mind some idea of the person referred to, together with a more or less hazy conception of the time and environment in which he or she lived.

Take, however, some examples not so palpable or apparent. There will, of course, be great need, on the part of the curator of a museum or other person who is seeking to arouse interest, to make careful researches and to stock his mind with facts which have been suggested to him by the sight of some work of art. This should not be a very difficult matter where, as is so frequently the case, there is a good public library attached to the museum. Consider, for instance, the electrotype reproduction in this museum of a silver table. Why should a table be made of or overlaid with silver, elaborately hammered and chased. The ordinary sightseer regards it as a waste of

money, and, to say the least of it, not particularly usable. But what a tale it tells ! It takes us back to the period of Charles II., when, after the stern days of the Commonwealth, there came a mighty reaction of extravagance and luxury ; when royalty and nobility vied for the possession of all that was costly. We look up the literature of the day ; we have recourse to the diaries of John Evelyn and Samuel Pepys ; we find reference after reference to the luxurious living of the rich ; and while the former looked at it with the level-headedness of the ordinary Britisher, the latter was infected with the same lust of possession. Have we not here a clear-cut cameo from history which might rivet the attention of visitors ? Could we not then, having provoked this interest, pass on to point out the marvellous nature of the workmanship and the beauty of the style ?

Or again, take a case of the much despised electrotype reproductions of English plate ; the whole history of your country can be traced there. You remark the almost entire absence of very early pieces, and you learn that the wars of the Roses are responsible for their loss. You notice the few pieces of Elizabethan times, and you understand their disappearance, through the imperious demands of Charles I. for money wherewith to carry on his wars. You observe their beauty, and you remember the prosperity of the country at that time and the plentifulness of silver through the conquest of Mexico and Peru by Spain. You pass on to Stuart times, and note the comparative rarity of pieces of the period, owing to the disturbed state of the country. You note the pooriness of Cromwellian work, owing to the spirit of the times which probably regarded such things as vanity. The reaction I have referred to is seen next. Then there come curious French-looking pieces, and you recall the expulsion of the Huguenots from France and the settling of some of the craftsmen in England. You notice the more sober times of Queen Anne giving way gradually to meaningless and excited work ; and after the middle of the century you notice a return to

classical form and simplicity, largely, if not entirely, brought about by the excavations at Pompeii and Herculaneum. The history of the country is faithfully reflected in its art, and can be emphasised by reference to the works of art produced at any given period. Or again, in the matter of social customs, you have the salt-cellar, with all the important ceremonial attaching to it; or the loving-cup, which should induce research into the origin of health-drinking and the giving of toasts; the tea, coffee, and chocolate pots, which mark the introduction of these beverages into the country, and recall many amusing stories.

Or take another common object in a museum, an embroidered sampler. The first thought is one of pity for the poor, unhappy child who was given the task of filling a square of canvas with a row of numbers, the alphabet, a verse with singularly morbid sentiments for a child of tender years, and an assortment of trees, sprays of flowers and animals. Yet such an object may form a convenient method of recalling the conditions of life under which such work was produced; and much that is valuable and instructive may be gathered from its study; and having realised the life of the embroideress and her narrow environment, we can easily regard her work as a labour of love, and pass on to notice its artistic character.

Or look at the collection of reproductions of portrait medals in this museum. The ordinary visitor does not understand what a portrait-medal is. He is, however, interested in the personages depicted, and the historical bearing of such a collection appeals to him, and opens the way for an attempt at due appreciation of its value as a collection of works of art.

Or consider further the amount of light thrown upon domestic manners and customs by the exhibition of a few old knives, forks, or spoons—what an amount of information is to be gained from them, the importance formerly attached to being the possessor of a few spoons, the state of things before the introduction of forks and the great change consequent upon their appearance.

Take another illustration. Many museums possess a book cover in the style of Grolier, to the uninitiated a somewhat interesting piece of binding ; but to him who has the eyes to see, the binding and its ornament recalls Venice and its marvellous position in the middle ages as the city through which all that was magnificent and artistic in the East passed into Europe. It brings to the mind a vision of the astounding manner in which the craftsmen of the East influenced—one might almost say dominated—the art of the West, so that whether it were bookbinding, pottery, embroidery, or silversmiths' work, it bore unmistakably the mark of the Saracen whose decorative ability had subjugated the Western craftsmen. Here, at any rate, is the opening for the teaching of much that is romantic, as you unfold little by little the marvellous story, how that from the earliest times the tide of art took its way westward from the far as well as the near East ; or, as you point out the effect of geographical position or climatic condition upon the art of any country, expanding and developing here, modifying and restraining there ; a storehouse of knowledge and interest is contained in that name " Venice," and you, with your imitation piece of Venetian glass, bronze, brass, or bookbinding, hold the key.

Or, to take a last illustration, your old piece of armour or helmet or a crossbow will easily conjure up before your mind many an historical scene, in which the characters soon become living realities in the mind.

To sum up, my contention is this : we rightly consider that a museum of industrial art should aim at placing before the public, works, whether a magnificent piece of jewellery, or an iron door handle, which are intended to be considered primarily from their artistic merit, which are meant to teach the visitor the history of some particular branch of art, and what to admire and value from the standpoint of beauty and utility. We remember, however, that a large percentage of visitors have either no artistic perception, or, at the least, an undeveloped sense of

appreciation of art. We have the power, and should use it to the full, of arresting their attention from the historic side, of appealing to the historic faculty which undoubtedly exists in most people, so that our collections are not simply relics of a bygone century, but are powerful though silent witnesses to the life, the politics, the crises, the social and domestic customs of the times in which they were produced.

In this connection you will easily perceive the value of small collections illustrating special phases of art, whether of a particular period or country. You will see the value of studying the vicissitudes of any branch of art, and its historic development or disappearance.

I am well aware that there are limitations to the suggestions I have sketched ; but I venture to think that we have not sufficiently studied the use of a museum of industrial art from the historic side, and I am confident that in this way we can attract the attention of the visitors to our museums to a degree which will far exceed our greatest expectations ; and our collections will have a new and living interest, for they will bring to the minds of those who see them pictures of the past, no longer hazy and nebulous, but real and clearly defined. Each man will see according to his capacity, and the work of art will speak to each as he has the power to receive it ; but the limits of interest which each person finds will be those, and no other, which are determined by the person himself.

DISCUSSION.

Mr. PATON : I rise to express my high appreciation of the clear and able address put before us by Mr. Watts. I think his paper is of very great value, and it draws attention to an extremely important and extremely popular and useful work, that is not only the illustration of history, but the contemplation of history in museums. There is the written history, but there is also the unwritten history, which never by any chance is alike ; but the proper interpretation is the thing that we ought to be very careful about. Even the greatest men move very much in the past. In Sir Walter Scott's romances the people did not

speak in the 13th or 14th centuries in the stilted manner in which Sir Walter Scott places them, of the 19th century. The reality of the hon. J. Collier, which he is so extremely careful about, is a reality of the 20th century, and I may also say that, if Mr. Collier manages to be extremely accurate in this way, it shows not so much that he is a great painter, but a very good antiquarian

Mr. SOUTHWELL: We are very much indebted to Mr. Watts for the suggestions which he has offered. There is one point which should be included in our museums—the collection of domestic articles of the past—and I just wish to call your attention to the experiments being carried on by Mr. Woolnough, at Ipswich. The Ipswich corporation have recently had presented to them an old building, and Mr. Woolnough is now engaged in fitting the kitchens of this 1546 building as nearly as possible with the appliances which were used at that date in domestic work; and I think that it is an example which might be followed, and which recommends itself to the consideration of those who happen to be in possession of these ancient buildings, which should be as nearly as possible restored to the position in which they were when in actual use. Mr. Woolnough's efforts in that direction will be seen when we go to Ipswich next year.

Mr. HOWARTH: I should like publicly to give expression to a sense of my gratitude to the department to which Mr. Watts belongs. In connection with the old Sheffield plate, to which he has referred, the Board of Education were very strict at one time about the objects for which they made grants-in-aid; and it was some years before I could induce them to give grants for the purchase of original objects of Sheffield plate. He will be glad to know that their grants led to the formation of the collection of Sheffield plate in the museum of that city. We have not a superabundance of money in Sheffield, and my committee were not very willing to face the expenditure; but when we got the offer of aid from the South Kensington Museum, I was able to form that collection, begun only a few years ago, which has now attained very respectable dimensions. As carrying out what Mr. Watts has said, the history of the plate is shown from the beginning to its close. The forms and artistic merits also engage our attention, as well as the marks to show the tradesmen of Sheffield. One of the members of my committee often asks me when we are to stop; it is a very difficult point to ex-

plain to a committee where you are going to stop. I have frequently refused things which illustrated something in connection with the place, and I have often been uncertain as to whether I was doing right or wrong. There is a lot of stuff that would be far better buried in our store-rooms than put in the museum. What should be put in the museum is a difficult question to answer. The objects should relate to the history or topography of the town, to the customs of the people, etc., they should have beauty of form to commend them to the eye and be suggestive to artists; and the simple fact that they are local ought not to be sufficient to give them a place in the museum.

Mr. CADDIE: I also wish to express my thanks to Mr. Watts. At Stoke-upon-Trent we are very much in the same position as regards the collection which is to illustrate our industry. Some years ago, in the pottery district, there was no public collection of pottery, unless that which had been acquired by a private gentleman at Burslem could be called so. But through the good offices of Mr. Watts, a grant of 50 per cent. in aid of purchase enabled us five or six years ago to commence to illustrate our industry, not merely from the historical, but also from the actually useful side. Some of the early examples are capable of being copied by our manufacturers, and they are directly a very useful collection. We wish, in addition to historical interest, to make it of direct use in our industry.

Mrs. CARLAW MARTIN (member of Dundee public libraries and museums committee): I am very much interested in Mr. Watts' paper. I think that he has brought home, and perhaps more to the outsiders, the great waste that is found in museums by the lack of the proper appreciation and proper understanding of the objects seen. The educational value of museums is very often and largely lost. I have long felt this, and I have been much interested at the many allusions to the lectures given in London museums and elsewhere, and the way in which these have been developed. I think that the future of museums in the kingdom lies largely in giving the right interpretation of the objects seen, and this would be greatly helped by these lectures. From what Mr. Watts has said, the proper arrangement of these objects must be greatly in the hands of the curators. If you are to teach history or interest people, the collections must be so dealt with that "he who runs may read," or else you must have the inter-

preter. I fail, then, to see how Mr. Watts would give this proper teaching, unless it is from the right arrangement or from the lips of the interpreter. It would impose a very heavy burden upon curators to interpret to the public. I think it is an excellent idea to have a museum illustrating the history of the town. I think we had that idea from Frederic Harrison, who brought it before an English body. We have a small beginning in Dundee, and I have no doubt that, with this start, Dundee may add to these collections. Of course, we are greatly handicapped by the unfortunate fact that the public does not appreciate any idea that will add to the rates. I think now that the Education Department could help such work itself.

Mr. PLATNAUER : The paper was admirable in its conception. The only point would be the method by which you would inculcate this history teaching. Would you utilise your present specimens, or would it make your lesson more clear if you had them separate :—a sort of side show or museum existing specially for such teaching, and to illustrate the principles you have put before us ? That is a point I should like you to give us your opinion upon.

Mr. MAY : I should like to point out that, with regard to the object and its surroundings, photographs might be shown taken on the spot to show these surroundings. I have suggested this from time to time, and I should like Mr. Watts' opinion on this.

Mr. H. BANTRY WHITE : I should like to speak on the point of the necessity of having some sort of guides in museums. In Dublin, we have had for many years lectures, and the officials are compelled to give what are called museums illustrations—that is, demonstrations on some particular portion of the museum, or something of that kind. We have advertised the fact that these demonstrations were to be given, and that tickets could be had free. Of course, we did not go through the museum with the audience, because it is very inconvenient to go through a museum with a large crowd, and speak to many at a time. My experience is that of some eight or nine years, and my knowledge of the persons who came to these demonstrations is that of a certain set of ladies and gentlemen ; but it is nearly always the same people, and they go away very little benefited from your demonstrations. The great thing in a museum is that your label should be in large type, easily read, and that the label with the object should give an entire description of it—a good idea of what it is.

And so, in Dublin, as opportunity arises, we give our demonstrations, and put our labels in very large type, so that he who runs may read.

Mr. CARRINGTON : It is with satisfaction I have had this opportunity of hearing such a paper. In respect to what has been said as to the methods of illustrating an industry, I may say that I am from Lancashire, and that there we are very much interested in cotton, and that a series showing the growth, the picking, the ginning, and so on, would be of great benefit. I may take Mr. Watts' paper as a hint that on the lines he has laid down the Board of Education would be willing to help us to show such specimens of cotton from its growth to the finish.

Mr. MACLAUCHLAN : Dudhope Park museum, which, if it is possible at all, I should like our members to see, exactly corresponds to what has been suggested. We have two great firms in Dundee, the one the head of the flax trade, and the other at the head of the jute industry—Messrs. Baxter Bros., a very large firm, who use largely flax, and Messrs. Cox Bros., the jute works of the world. I think a good many of the members, when they visited Dundee on their way south after the Aberdeen conference, had the opportunity of seeing these great works of Messrs. Cox. In this little museum at Dudhope Park we have two cases from these firms ; in the one case, Messrs. Baxter show the raw flax, and every process throughout the manufacture on to the finest linens of the various qualities ; in the second case, Messrs. Cox show the jute as it comes here from India, and as it is landed in our docks to the finished Hessians. We have also cloths made from the dyed jute, and carpets made from jute. We accidentally came into possession, some years since, of a curious set of beautiful engravings of about 150 years ago, published in Ireland, illustrating the flax process throughout, which are exhibited in the same gallery. Each of these engravings is dedicated to some great Irish nobleman. We see the sowing of the seed, the flax steeping in water, onwards to the highest quality of Irish linen, which, excepting the old linen made 4,000 years ago in Egypt, is the finest obtainable. The engravings also show the most important part of all, the selling of it. We see the Cotton Exchange, in front of which are the congregation of merchants, as you saw at our own exchange the other day, but instead of the merchants looking sober and sedate, as merchants of the present day do, they have cocked hats.

Mr. WATTS replies : I do not know any museum which can afford to keep these teaching exhibits separate. But I have seen something of this kind in the Brussels museum, along the side of the central hall. I hope, in the course of a year or two, to have eight or ten similar rooms at South Kensington. I do not think it is quite practicable to increase the interest in the museum of art by directing people to the historical side of the object or collection. Your industrial museum of art should let your works of art teach history as far as they can. Mr. White's museum demonstrations are practicable, and it would be an excellent idea. It entirely depends on the curator. It is a difficult matter to know where to stop in drawing up a label. If you had leaflets, and distributed these, such as the one on this collection of water-colours, and as we have on the Hildesheim treasure, etc., it might help the understanding and usefulness of such collections. After all, I suppose the most important thing that can be done is for the curator to give talks occasionally on definite collections. I have heard many lectures on various aspects of the collections which we have sent, and I think that is as useful a way as any of calling attention to them. I may mention that our department is willing to lend you lantern slides to cover every period in history or art.

The Attitude of the Peacock in Display.

By Dr. A. B. MEYER.

[Read at the Dundee Conference, 1907.]

AT the Aberdeen meeting of the association, Mr. W. P. Pycraft (*Museums Journal*, vol. 3, p. 288, pl. 42, 1904) showed from observation and photographs that the peacock in display touches the ground with the rings, and that they are to be seen below the lower margin of the expanded fan. During a sojourn at Gries, near Bozen, Tirol, I occasionally observed a particularly beautiful specimen of an entirely albino peacock which did not show the position of the wings above described. I again and again paid attention to it, and never saw the wings protrude below the fan, and, therefore, had photographs



made in three different positions to prove my observations. I desire to call special attention to the fact that the bird was always in a state of maximum excitement, and that it was impossible for it to spread the feathers more than it did. The figures show that the wings remain hidden from front and back. Possibly different birds behave differently in this respect.





DISCUSSION.

Mr. R. F. MARTIN : Mr. Pycraft's theory is interesting, but I thought that, perhaps, Dr. Meyer, in his photographs, would have shown how the peacock's tail or fan was used as a design for, say, some of the Italian textiles at the latter end of the 16th century.

Mr. HOWARTH : I think that the difference in the position of the wings of this bird would occur at different times in the same individual according to its mood. Perhaps Dr. Meyer and Mr. Pycraft are both right ; and others may see the wings trailing, or in their normal position, at different times, in different birds, under the varying intensity of emotion, whether of love or rage, that is influencing them.

Mr. MIDGLEY : I remember Mr. Pycraft's article on the subject of the peacock's wings touching the ground. I have also closely watched the peacock, and have noticed that the wings do not trail on the ground constantly as the bird is strengthening or spreading the fan. I do not know that it often occurs, but it does so occur.

Dr. HENDERSON, University College, Dundee : The male bird, when greatly excited, does invariably trail the wings on the ground, as I have found several times.

Mr. MACLAUCHLAN : It is quite a mistake to think that the peacock is a vain bird, and that, like some plain men, he struts about to show himself off. It is plain people and plain birds that are the vainest.

Dr. HOYLE: I thank those who have just engaged in the discussion, and I think it shows quite clearly that the differences in the exhibition of the wings are due as much as anything to the excitement of the peacock. I think, like Mr. Martin, that it would be interesting to talk of the peacock in reference to the beautiful examples in Byzantine art, such as the one on the sarcophagus at Ravenna, and the well-known example in Ruskin's "Stones of Venice."

Museum Publications.

ANALES DEL MUSEO NACIONAL DE BUENOS AIRES, Series 3, Vols. 6 and 8, 1906.

The sixth volume of the Annals of the Buenos Aires Museum contains sixteen original scientific memoirs, treating of a great variety of subjects, palæontology, histology, entomology, anthropology, and botany being well represented. All are too technical for abstraction, but the following may be specially mentioned:—The perforation of the astragalus in various mammals; Fossil penguins and fossil edentates, by Dr. Ameghino; South American vespidae and eumenidae, by Juan Berthes; Second contribution to our knowledge of the Argentine grasses, by Theodore Stuckert, and several papers on Indian remains and instruments, by F. F. Outes.

The eighth volume (of over 500 pages) is entirely occupied by an important memoir by Dr. Ameghino on "The Sedimentary Formations of the upper cretaceous and the tertiary of Patagonia." After an introduction and a bibliography, a chapter is devoted to general questions, followed by ten chapters, in which the different successive strata are treated in detail and illustrated by numerous sketch maps, sections and figures of fossils. Following upon this we have a series of chapters treating of the "Connexion between Africa and South America during the cretaceous and lower tertiary," "Migrations between South America and the ancient continent during the

middle tertiary," "Influence of the barrier between the North and South Atlantic in the distribution of marine faunas," "Succession of mammalia faunas in Argentina," ending with a synoptic table of the formations, which embodies the results of the most recent researches. The whole is illustrated by two lithographic plates of fossils and some large geological sections, and constitutes unquestionably a work of first-class importance.

General Notes.

AT HOME.

UNIVERSITY HONOURS FOR GEOLOGISTS.—Honorary degrees have been conferred upon the following members of the Geological Association, viz. : Doctors of Science—Waldemar Cristopher Brögger, professor of mineralogy and geology in the university of Christiania ; Geheimrath Hermann Credner, director of the geological survey of Saxony, professor of geology in the university of Leipzig ; Professor Louis Dollo, curator in the Royal Museum of Natural History, Brussels ; Albert de Lapparent, professor of geology and mining in the Catholic Institute, Paris ; Professor Alfred Gabriel Nathorst, keeper of the department of fossil plants in the State Museum of Sweden, Stockholm ; and Geheimrath Professor Heinrich Rosenbusch, professor of geology and mineralogy in the university of Heidelberg.

DEATH OF PROFESSOR C. STEWART.—By the death of Professor Charles Stewart, which has occurred after a somewhat protracted illness, the Royal College of Surgeons of England has lost an official who has held the office of conservator of the museum for the past twenty-three years. After attending as a medical student at St. Bartholomew's Hospital Professor Stewart became a member of the Royal College of Surgeons in the year 1862. He was admitted a Fellow of the Linnean Society in 1866, and was president of that body during the years 1890 to 1894, and in the following year served as vice-president. Professor Stewart was also a fellow and vice-president of the Royal Microscopical Society, and became one of its honorary secretaries in 1878. He was treasurer of the Anatomical Society of Great Britain and Ireland from its foundation until 1891.

During the period 1894-7 he held the office of Fullerman professor of physiology at the Royal Institution, and delivered several evening lectures at the same place. He was admitted a fellow of the Royal Society in 1896 and obtained the honorary LL.D. of Aberdeen University. Before being appointed conservator of the College of Surgeons' Museum Professor Stewart was curator of the museum of St. Thomas's Hospital, lecturer on comparative anatomy, and joint lecturer with Professor John Harley on physiology at that institution. He was subsequently appointed professor of biology and physiology at Bedford College. In the year following his appointment at the College of Surgeons he was elected Hunterian Professor of Human and Comparative Anatomy, and held the post until the year 1894. The true value of Professor Stewart's scientific work is not to be judged solely by his writings, which, in spite of the vast extent of his knowledge gained from his personal observations, were comparatively few in number, but it is to be seen rather on the shelves of the college museum in the unrivalled series of preparations and dissections by which he sought, in continuation of the work of previous conservators, to illustrate important phases in the evolution of the organic world and thus to amplify the original scheme of John Hunter, whose collection forms the nucleus of the college museum. Professor Stewart was a master in the art of lecturing. His easy and lucid style, combined with a rare power of swift and effective drawing on the blackboard, would have made his addresses notable quite apart from the peculiar charm of his delivery.

RUBENS RESTORED.—After being engaged on the work for six months, the artists commissioned by the Office of Works have completed the restoration of the Rubens ceiling of the banqueting hall of the Old Palace of Whitehall, which now forms part of the museum of the Royal United Service Institution. The ceiling is divided into nine compartments by a rich framework of gilded mouldings. The paintings, which were removed from the ceiling, have been remounted. After the lapse of more than 270 years they still retain much of the brilliance of Rubens's wonderful colouring. The subjects are allegorical, and flattering to James I. and Charles I., who commissioned the great artist to paint them in 1630 for the sum of £4,000. Altogether the paintings cover 400 square yards of canvas. The portraits of both the

Stuart monarchs are introduced, and the allegories are intended to represent their power, their wisdom, and their virtues, as Rubens conceived them. The paintings have been thrice retouched before—in the reign of George II. by Kent, in 1785 by Cipriani (who was paid £2,000 for his work), and in 1837 under the direction of Sir Robert Smirke. The hall is now being decorated, and when the work is finished, the art, science, and natural history collections, together with the books and documents, will be placed in the central depository.

CIVIC LECTURES.—Mr. P. Entwistle, the assistant curator in the Mayer Museum, Liverpool, is giving a series of Monday evening lectures in the museum upon "Bygone Liverpool," as represented at the recent historical exhibition. This subject is somewhat of a change from the natural history and ethnographical topics usually dealt with in the courses of popular museum lectures on Monday evenings between October and March.

HALIFAX MUSEUM.—The valuable ethnological collection of Mr. George Kennedy, of Manchester, has been purchased for Bankfield Museum, Halifax, at a cost of £400 by six local gentlemen—Messrs. John Hoyle, J. Whiteley Ward, F. Whitley Thomson, Gamaliel Sutcliffe, G. Marchetti and A. S. McCrea. Halifax can be congratulated upon having citizens with the generosity to make such an important addition to their museum. The collection consists of 600 specimens. It is almost entirely made up of articles having their origin in the Western Pacific—the New Hebrides, New Guinea, Fiji, the Solomon and other islands. A special value is attached to the specimens in that they are examples of native handiwork, untouched by even the slightest European influence, and such as it would be quite impossible to find to-day. Consequently they provide a genuine reflection of the state of art, civilisation, and manners possessed by the native before he was disturbed by the white man.

WHITECHAPEL EXHIBITION, LONDON.—An exhibition illustrating "Animals in Art" is held in the Art Gallery, Whitechapel. One room is devoted to paintings by Flemish and Dutch animal painters (Rubens, Snyders, Paul Potter, Hondecoeter), as well as groups by the older English painters (Morland, Stubbs, and Ward), and by nineteenth century or contemporary animal painters in England and France. A second gallery is given up to Japanese and Chinese paintings, drawings, and carvings of

animals ; while the lower gallery has sections for animal sculpture, animals in ancient art—Assyrian, Egyptian, Greek, and Roman—mediaeval carvings and paintings illustrating the animal symbolism of the Bestiaries, heraldic animals, the use of animal forms in decorative work by savage races, and, lastly, animal forms occurring in tiles, tapestries, rugs, metal-work, pottery, furniture, etc.

NEWCASTLE MUSEUM.—The report of the council of this museum states that some of the additions made to the museum during the year called for special attention. Perhaps the most important of all is the collection of birds formed by the late Thomas Thompson, of Winlaton. In his will, Mr. Thompson bequeathed to the society such of his birds as he considered to be most valuable as local records, as well as certain other objects of natural history ; and subsequently almost the whole of his collection, including a large number of particularly well mounted specimens, was handed over to the museum by his residuary legatees. Mr. R. S. Bagnall has made a valuable addition to the reference collections in presenting a very complete series of the British woodlice. A number of well set Canadian lepidoptera have been received through Mr. George Jenkins. The herbarium of the late John Storey forms an interesting addition to the rich store of botanical material contained in the museum ; John Storey was a well-known botanist of the last generation, and his herbarium comes to the society through the executors of his son. As usual, the museum has been indebted to Mr. G. E. Crawhall for various gifts ; these have included during the past year a number of African weapons and several birds, the most interesting of the latter being a fine example of what is known as the Polish swan. The mineral collection has benefited considerably through specimens acquired by donation or exchange from Mr. P. Walther. From Colonel Carr-Ellison have been received some bird skins and North American plants, and he has also deposited on loan in the museum some very good ethnological objects, chiefly weapons and utensils from New Zealand and the South Seas.

THE NEW VICTORIA AND ALBERT MUSEUM, LONDON.—Queen Victoria laid the foundation-stone of the great extension block of the Victoria and Albert Museum, South Kensington, some fourteen years ago. Building operations, which are now approaching completion, have been in progress for seven years. Externally the work is finished,

and the removal of the scaffolding in front of the façades in Cromwell Road and Exhibition Road, having frontages of 260 and 140 yards respectively, enables one to appreciate the noble proportions of the extension. It almost rivals its near neighbour, the Imperial Institute. Three storeys high, the structure, which will cost about £1,250,000, is mostly built of Portland stone, relieved here and there with red brick. The second course of the building is decorated by upwards of thirty niches, containing figures in high relief of eminent British artists, sculptors, architects, scientists, and others. The main entrance is in Cromwell Road, through a massive recessed portico, above which in the frieze is a statue of Queen Victoria in *alto rilievo* in a niche, in full State robes, and bearing a gilt orb and sceptre. The pediment above is charged with the Royal coat-of-arms. The roof of the building is crowned by a massive dome, and octagonal cupolas in two tiers supported by Ionic columns, and the whole surmounted by a statue of Liberty, two hundred feet high from the street level. On the right of the portico is a figure of the King placed in a niche, and on the left one of Queen Alexandra.

MUSEUM OF PRACTICAL GEOLOGY.—From the recently-issued Summary of Progress of the Geological Survey for 1906 we learn that during the past year an attempt was made to initiate a series of exhibits that would illustrate the geology of the districts described in some of the new memoirs. Thus, illustrated exhibits have been installed in explanation of "The Geology of the country near Sidmouth and Lyme Regis," and "The Geology of the Isles of Scilly." In each case numerous photographs and specimens are shown with short descriptive labels. It is hoped to be able to prepare similar exhibits for the more important among the future memoirs, and it should be noted that, owing to the necessity of changing them from time to time, they can be on view only for a limited period. In the museum extension, the exhibit to illustrate the English china-clay and china-stone industry has been completed, and the collection of road-stones has been considerably increased. By the modification of one of the old cases on the principal floor, an effective exhibit has been made of some of the larger mineral specimens. Most of the museum work during the year has been devoted to the re-organisation of the storage accommodation. Good progress has also been made in revising the nomenclature of parts of the museum

collection, and Mr. E. A. Newell Arber, Dr. Wheelton Hind, Dr. C. A. Matley, and Mrs. Shakespear have given assistance in the work. Mr. H. A. Allen has been engaged for some time in preparing a manuscript catalogue of the large series of tertiary vertebrata, and this is approaching completion. He also arranged a case in the museum for a temporary exhibit, where a selected series of fossils newly acquired will be on view for some time before they are permanently placed in the collections. The museum has acquired for reference valuable collections of fossils from the Speeton series, showing the zonal succession, and from the carboniferous limestone of the Bristol area in illustration of Dr. A. Vaughan's researches.

MUSEUM CONFERENCE AT SALFORD.—On the invitation of the committee of the Salford Museum, a museum conference was held in that institution on Friday, October 18. After an inspection of the museum, followed by tea, hospitably provided by the committee, Mr. Ben H. Mullen, M.A., the curator, gave a brief account of the Salford museums. Notes on the preparation of plants for exhibition were read by Mr. G. A. Dunlop, of the Warrington Museum, who described the dry method, while Mr. Harold Murray, of the Manchester Museum, dealt with the wet method. Mr. E. E. Lowe set forth "What should be the curator's ideal."

BOOTLE MUSEUM.—Side by side with a number of interesting mementoes of the city's remote past, there has recently been suspended in the middle room of the Bootle museum a choice photogravure of the oil painting, "Modern Liverpool, 1907," by Walter Richards, now being exhibited in the autumn exhibition. The view represented is looking from above the river Mersey, south-west of the landing-stage; and gives a comprehensive panorama of the chief business part of the city, rising from the broad plateau on which stand the new offices of the Mersey Docks and Harbour Board, the prospective offices of the Royal Liver Friendly Society, and the new Tower-buildings, extending in every direction to the confines of the city, and showing in true perspective all its leading architectural features, such as the Custom-house, Colonial House, White Star Offices, Town Hall, Cotton Exchange, Exchange-buildings, Municipal Offices, Royal Insurance buildings, St. George's Hall, Free Library and Museum, Technical Schools, Walker Art Gallery, the chief railway stations, and all the principal streets, in which are many important and handsome

business edifices ; in fact, the detail is such that there is no spot of interest which rises above the mass of busy thoroughfares, from the cathedral in course of erection in the south, to the heights of Everton in the north, that cannot be easily traced. Thanks to the courtesy of a number of Liverpool citizens, the Bootle free library and museum committee are arranging, in November, a small but interesting exhibition of " Old Liverpool " views.

MUSEUMS AND EDUCATION.—A pleasant method of bringing elementary teachers into touch with the potential educational influence of a museum has been adopted by the Mayor of Maidstone, who recently invited the elementary teachers of that town to a *conversazione* in the public museum and art gallery. A lecture was given by Mr. J. H. Allchin, curator, illustrated by lantern slides, and the attractions of the museum were made manifest in such an excellent manner as to commend it strongly to those engaged in forming the minds of young people. It is hoped that this admirable example will commend itself to other municipalities.

NATIONAL GALLERY, LONDON.—The Spanish room at the National Gallery has been entirely rehung, and the pictures by Velasquez can now be studied under new conditions. The " Venus and Cupid " has been removed from the centre of the west wall to a place on the left hand of the doorway on the opposite side of the gallery, and a new place on the same wall has been assigned to the wonderful bust portrait of " Philip the Fourth, King of Spain." Both can be well seen in the new position. A more interesting feature of Sir Charles Holroyd's experiment is the bringing out from the relative obscurity of the south wall of the large " Philip the Fourth of Spain Hunting the Wild Boar," which the director has placed in the fine position formerly occupied by the " Venus and Cupid." The hanging of the " Boar Hunt " in a clear, good light will probably attract the attention of students to a picture that has been the subject of many battles between experts in the past. The amateur of painting will, for the first time for many years, have an opportunity of trying to discover what parts of the picture are the work of George Lance, who claimed to have put into it groups of figures that he himself had imagined and designed. Lance, however, thought that other hands had worked on the " Boar Hunt " after his " restoration." Cavalcaselle has expressed the opinion that the repainted portions " are doubtless those which may still be seen here and there daubed with colour,

more particularly the figures in shadow, which, from the man on horseback to the left of the spectator, to the group in the centre of the picture, are more or less repainted and retouched. As for this central group, three men in shadow are covered with modern colour, and likewise part of the neighbouring horse and mules and pieces of the ground, which can never be mistaken for the work of Velasquez." A new work appears in the re-arranged Spanish room in the shape of a picture lent by the Victoria and Albert Museum, "The Adoration of the Magi," by Lo Fil de Mestre Rodrigo.

CLASSICAL SCULPTURE IN A NEW ASPECT.—It will be a shock to members of the Classical Association to read the following authoritative criticism of the classical sculpture by Mr. E. Swaysland, the principal of the Northampton Technical Shoe School and the editor of "The British Shoemaker":—"A walk through the British Museum and a close examination of the pedal extremities of ancient art there shows they are all bad about the feet. 'The Disc Thrower,' a celebrated specimen, has particularly bad examples of incipient bunion joints. If the foot of the Farnese Apollo, used as a model in most art schools, represents the foot of the average Greek, corns and bunions must have been common in that classical country."

A RAILWAY MUSEUM.—There is some prospect, says the "Engineering Times," of a railway museum being established, and that several interesting old locomotives of the London and North-Western Railway and the Great Western Railway are to be preserved with this end in view, notwithstanding that the G.W.R. have recently broken up some of their old engines, which would have been among the most interesting items in such a museum, after preserving them for many years. There are many examples of early locomotives and rolling stock still in existence in various parts of the country, though the largest collection is that at South Kensington, which is very inadequate in view of the importance of the subject. It is expected that the old "Cornwall," one of the other singles of the Problem class, and one of the well-known Precedent class, will be preserved by the London and North-Western Railway. The Great Western are preserving an old single engine at Wolverhampton. The Furness Railway are preserving an old Bury engine, the South-Eastern and Chatham Railway have presented No. 1 of the Canterbury and Whitstable Railway to a public park at Ashford, and the North-Eastern Railway have several old locomotives and vehicles

at Darlington, Newcastle, and the York shops. Probably a few other equally interesting items are available in various parts of the country.

TREASURE UNDER A GOLF COURSE.—During extensive alterations to the Lindrick golf course, Sheffield, workmen have discovered over 50 silver coins of the reign of Henry VIII. at the eighth hole, under a thorn tree, where the old pack-horse track used to cross the common. The coins were found less than a foot below the surface, and were virtually under one sod. Notification of the discovery was made to the coroner of Sheffield for him to decide whether the coins are treasure-trove and property of the Crown.

INTERESTING NATURAL HISTORY DISCOVERIES IN LINCOLNSHIRE.—A paper of considerable interest to conchologists and geologists has been read by Mr. C. S. Carter, curator of the Louth Museum, before the Louth Antiquarian and Naturalists' Society, on the subject of the "hill-wash" recently discovered by him at Fisher's Hill, on the Hubbard's Valley estate. Mr. Carter has been assisted by Mr. A. S. Kennard in the identification of the shells and other remains found in the deposit, which varies from one foot to six feet in thickness. Up to the present 29 species of shells have been found, two species of chalk fossils, and a few erratic pebbles. *Hygromia hispida*, and its variety, *nana*, are fairly common in the rain-wash, but the variety has not before been recorded for Lincolnshire. One of the most interesting of the shells found is *Helicigona lapicida*, of which only one specimen has been found (at about 18 inches below the surface). It is a very small form, measuring only 14mm., compared with 16½mm. given as the measurement of the type in Adams's Manual, and this species has only been recorded for four other localities in North Lincolnshire. An exceedingly small specimen of *Helix hortensis* (13mm. by 15mm., compared with 16mm. or 18mm. type measurement) is included in the finds. This species is not known to live nearer than Fotherby on the north, and Maltby Wood on the south, and there is no record of its occurrence east or west of Hubbard's Valley until we get beyond the Wolds. *Clausilia laminata* occurs in fragments in the hill-wash, but there are no records of its living in the neighbourhood. Three specimens of *Paludestrina stagnalis*, a purely estuarine shell, have been found in this deposit, and Mr. Carter suggests that gulls or other shore birds may have carried them there on their feet. Not a

single freshwater shell has been found in the deposit, and therefore it may be concluded that it is not an alluvial drift. The absence of *Helicella caperata*, which is now one of the most abundant of living species in the district, gives the clue to the age of the deposit. It occurs in the Otford wash, which is known to be of Roman date, but does not appear in Kennard and Woodward's papers on the post pliocene mollusca of the Mylne collection and Holocene shells from Ightham, nor in the same joint authors' paper on sections of the Holocene alluvium of the Thames at Staines and Wargraves. The deposit, it may therefore be assumed, is not much later than late Roman times.

GIFTS TO DUDLEY ART GALLERY.—The permanent collection of the Dudley Art Gallery has just been enriched by the gift from Alderman E. Grainger of eight valuable oil paintings. Three of them are by William J. Müller, and the others are by John R. Reid, R.I., Flora M. Reid, T. Whitehead, and John S. Noble, and an example of the donor's own work, in the shape of a large landscape, which a few years ago was exhibited in the Royal Academy. The borough is indebted to the generosity of Alderman Grainger for other paintings and drawings in the permanent collection, his previous gifts including fine examples of Copley Fielding, Claude Hayes, and W. H. Y. Titcombe.

NATIONAL GALLERY OF SCOTLAND.—Sir Donald Currie, G.C.M.G., of Garth, has presented Sir George Harvey's well-known picture, "The Bowlers," to the National Gallery of Scotland, through Lord Provost Gibson, one of the trustees. Painted in 1853, it is a typical and fine example of Harvey's art, and combines incident and landscape very happily. It is the original of a very popular engraving. As the picture requires some little attention, it will be a few weeks before it can be hung in the gallery.

DUNDEE ART GALLERY.—Many years ago Dundee was one of the cities foremost in the encouragement of art. At its annual exhibitions large sums were spent in buying pictures, and the names of Keiller, Spence, Urquhart and Weinberg were well known to south country artists. Of late years financial patronage of the arts has not been so generous, partly because of dull trade, but perhaps more particularly owing to the death of the old collectors. The pictures in the municipal galleries reflect the taste and influence of the gentlemen named above, some of the canvases having considerable distinction. But there has just been added a painting which is rightly described as "the greatest

work of art belonging to Dundee." It is the finished sketch for Sir W. Q. Orchardson's magnificent "Voltaire." The story of its acquisition may be told. Mr. John Morris, a schoolmaster, who died in 1896, bequeathed the residue of his estate as a capital fund to remain intact, the interest on which to be applied in the purchase of pictures for the Dundee Art Gallery. The trustees of the Morris Fund, who had already presented three works to the city, one of them by Mr. John R. Reid, R.I., wishing to acquire a picture by Sir William, visited his studio, and were so pleased with the "Voltaire" sketch that they commissioned him to finish it for public presentation to the gallery. There are likewise three portraits by Sir William in the Albert Institute, which has just been enriched with a portrait of ex-Lord Provost Barrie, by Sir James Guthrie, P.S.R.A.

G. F. WATTS'S SCULPTURE GALLERY.—Adjoining the gallery of G. F. Watts's pictures at Compton, Surrey, a sculpture gallery has just been opened, and will hereafter be open daily to the public. This contains the original cast of the famous "Physical Energy" group—the bronze cast of which is now being erected in Kensington Gardens—and that of Tennyson, the bronze of which has been erected at Lincoln. There is also the recumbent statue of Bishop Lonsdale of Lichfield—now in the cathedral there—and a Medusa head in alabaster, one of Mr. Watts's earliest pieces of sculpture. On the walls are hung a number of studies in charcoal and chalk, and unfinished head studies in oils, as well as the pictures "Satan" and "Hyperion and Artemis." The gallery is primarily intended for the use of students, who will be admitted in the mornings. For the public the gallery will be open from 2 p.m. until dusk in the winter, and from 2 p.m. until 6 p.m. in the summer. Students' tickets for admission may be obtained from Mr. C. H. Thompson, the curator. The picture gallery will be open from 10 a.m. until dusk in the winter, and from 10 a.m. until 6 p.m. in the summer, Thursdays excepted, when both galleries will be closed. Compton is easily accessible from Guildford, Farncombe, or Godalming stations.

EASTERN ART AT BETHNAL GREEN, LONDON.—There has been deposited in the Bethnal Green museum—which is a branch of the Victoria and Albert Museum, South Kensington—a collection of Eastern art objects lent by Lord Curzon of Kedleston, of which an official catalogue is now available. A large portion of this collection was made

by Lord Curzon in the course of his travels in the East during the last twenty years, and notably during the seven years he was Viceroy of India. It illustrates chiefly the art of India, Burma, Nepal, and Tibet, but specimens are also included of the art productions of Turkey, Persia, Afghanistan, Siam, and China. It thus embraces in a single survey the majority of the countries on the mainland of Asia, and presents a comprehensive picture of some, at least, of the principal artistic manufactures of the East, as well as many interesting personal mementoes of Lord Curzon's term of office in India. There are a number of objects connected with the celebration of the famous Coronation durbar held at Delhi, on January 1, 1903, which was presided over by Lord Curzon, and there are many caskets, in silver, ivory, wood, and other materials, presented to him by municipalities and other public bodies in India, many of them of purely Oriental design, the remainder showing Western ideas. The collection likewise contains two lapis lazuli and silver tables, presented to Lord Curzon by the Ameer of Afghanistan, as well as a tall brass candelabrum of curious pattern, from Cabul.

THE ROYAL SCOTTISH MUSEUM AND EGYPTOLOGY.—Mr. Edwin Ward, of the Royal Scottish Museum, will leave Edinburgh early in November for Cairo, where he will join Professor Flinders Petrie's party, and will be engaged during the winter and early spring in the work of archaeological excavation in Egypt. Last season Mr. Ward was for a time at Gizeh, where several interesting discoveries were made, but his principal work, which continued on to the end of March of this year, was at Asyut, in Upper Egypt, about 200 miles south of Cairo, where Professor Petrie had secured a site. The land they had to explore lay between the cultivated belt which borders the Nile and the cliffs which separate "the land of Egypt" from the Great Desert, and extended southward for about 60 miles. From the fact that this higher ground was above the reach of the river when in flood, it was chosen by the old Egyptians as the site of their cemeteries, and the work of the diggers was rewarded by the discovery of tombs containing finely decorated and carved coffins of the twelfth dynasty, along with all the accessories of the burial—canopic jars, carved wood boats, figures, &c.—many of them intact and perfect as the day when the tomb was sealed up 4500 years ago. A share of these finds has now become the property of the museum. The specimens which have come to Edinburgh

include among other things a decorated coffin of the rare twelfth dynasty work with the portrait head of the deceased boldly carved and overlaid with gilding ; a set of inscribed and perfect canopic jars, and a representative selection of the types of " soul-houses " as Professor Petrie has named these remarkable terra-cotta models of the actual dwellings of the old Egyptians which were found placed beside their tombs. During the coming season the work of excavation will be on a still more extensive scale. Memphis, whose history extends over the whole course of Egyptian history, contained at one time the finest school of Egyptian art, but the site has never been excavated, and it is to Memphis that Professor Petrie and his assistants are to devote their attention during this and probably many succeeding seasons. The temples at Memphis were standing, like the ruins of Thebes, down to 700 years ago, but were finally removed to serve as building material for Cairo. Since then most of the site has passed under the plough, villages have been built on it, and the foundations and sculptures now lie hidden beneath cultivated fields owned by the villagers of Metrahineh. The clearing of this site, with gradual exchanges of land as required, will occupy many years. It is estimated that an expenditure of £3,000 annually for about 15 years will be needed, but, as Professor Petrie has pointed out, half of the discoveries made will be granted to him by the Egyptian Government, and as the objects so obtained will all be distributed, there will be a considerable return to the museums which assist in supporting the work. The Royal Scottish Museum has already materially benefited by the close connection which the director has established with the work in Egypt, and an opportunity seems now to be offered of securing further important additions to the museum, especially of statues and other sculptured stone work—specimens of which are most desirable for the collections here.

GLASGOW ART GALLERY AND MUSEUM.—At the opening of the exhibition of Mr. R. C. Crawford's pictures it was announced that Mr. G. J. Kidston, of Finlaystone, had purchased a study of " A Storm at Portincross " for presentation to the art collections of the corporation. Since then an anonymous donor has purchased another of Mr. Crawford's works, and has intimated his intention of offering it to the museums and galleries committee. This second picture, " The Water Stoup," is a characteristic study of a comely maiden amid rustic surroundings, and with this

further addition the varied phases of Mr. Crawford's activity will be well illustrated in the collection. An addition to the engineering collection at Kelvingrove Museum consists of a 20-24 h.p. petrol motor presented by the Argyll Motors (Limited), Alexandria, and is a good example of the four-cylinder type of engine in common use on the company's motor cars. To enable visitors to obtain an instructive view of the mechanism, as much of the case has been removed as is practicable, and a diagrammatic label written pointing out and describing the various parts. Fitted to the engine is a fly-wheel and friction clutch of the "Champion" type presented by Durham, Churchill and Co., Sheffield.

MORE LIGHT AT THE BRITISH MUSEUM (NATURAL HISTORY).—The bird gallery of the Natural History Museum at South Kensington has just undergone a complete transformation as regards its general appearance by the whitening of the ceiling, walls, and pillars of the gallery. The work has been in hand for some time, under the direct supervision of the first commissioner of works, and now that it is finished the effect is startling to those who remember the subdued colouring of the original terra-cotta. In the gloomy atmosphere of a London winter the specimens will be better seen in their new setting of white, while the innovation will undoubtedly facilitate the proper lighting of the gallery by electricity, which is in contemplation. The experiment is a bold one, and it will be interesting to note whether the result will justify a similar treatment of the other galleries of the museum. One would like to enquire why the lower part of the walls should have been painted in a tint different from that of the upper part, and why oil paint should have been used rather than a washable distemper, which could more easily have been removed or renewed as experience might prove to be the better course.

ABROAD.

APPOINTMENT.—Mr. Robert Hall, of Melbourne, has been appointed to succeed the late Mr. Alex. Morton, as curator of the Hobart Museum, Tasmania.

BIOLOGICAL EXPEDITION.—Advantage has been taken of the occasion of the visit of the magnetic surveyors to the Southern Islands of New Zealand to organise a biological expedition thereto. The movement was inaugurated by the Canterbury Philosophical Institute, and a party of some twenty-five local biologists will leave for the Auckland and

Campbell Islands about the end of November, and be absent four or five weeks; The principal museums of the dominion will be represented by their respective curators, viz.: Messrs. A. Hamilton, Colonial Museum, Wellington; Edgar R. Waite, Canterbury Museum, Christchurch; and Professor Benham, Otago Museum, Dunedin.

ART EXHIBITION IN MELBOURNE.—From Melbourne we learn that, under the title of the British Art Gallery, an exhibition, the fourth of its kind, of British pictures is to be held in that city during March, April, and May next year, and it is being financed by a body of Melbourne guarantors. The undertaking is not a commercial one, but a public effort by the guarantors to advance the artistic taste and pleasure of the people of Melbourne. The patrons of the undertaking are the Governor-General of the Commonwealth and Lady Northcote, Sir Reginald Talbot (the Governor of Victoria) and Lady Talbot, Sir John Madden (the Lieutenant-Governor) and Lady Madden, and the co-operation of the Royal British Colonial Society of Artists has been obtained. The exhibition will comprise three sections, viz., a corporate exhibit of works by members of the society just mentioned (about a hundred and fifty in number), a specially-invited section, and a small British loan section. This last will be small in number but of rare quality, the pictures already secured representing Watts, Burne-Jones, Millais, and Sargent, with one little "Dicky Doyle." Among the other pictures promised are a number from the brushes of Sir E. A. Waterlow, Mr. B. W. Leader, Mr. David Murray, and Mr. J. H. Lorimer.

THE LARGEST METEORITE IN THE WORLD.—What is described by the "New York Times" as the largest, strangest, and by far the most interesting meteorite in the world has come into the possession of the American Museum of Natural History. It is known as the Willamette meteorite, and was discovered by two prospectors named Hughes and Dale in the woods of Willamette country. It has cost, delivered to the museum, about 25,000 dollars, of which 20,600 dollars represents the price paid for it to the lucky person on whose land it was discovered. This great meteorite is in the form of an abbreviated cone, having its base on two sides so prolonged as to produce an oval whose long diameter is one-third greater than its transverse diameter. There are no angular outlines to the mass as a whole; all, whether in vertical or horizontal sections, are bounded by broad curves. In the lower half

of this great cone are a number of round bore-holes, irregular as to position and more general near the bottom or base of the meteorite. These holes are nearly circular and well defined. They are from one to four inches in depth and three to eight inches in diameter at the outside. Another feature of this remarkable meteorite consists in the deep furrows or channels cutting into the lower cone area. These furrows extend vertically to the lower edge or base of the mass, whose border they break with channelling. The extreme length of this great mass of iron is 10ft. 4in.; breadth across base, 7ft.; extreme vertical height from base to summit of dome, 4ft.; total circumference of base, 25ft. 4in. It weighs approximately 20 tons. Two analyses of iron have been made, small particles having been chipped off the mass for that purpose. One analysis shows iron, 91.46; nickel, 8.30. The other analysis shows iron, 91.65; nickel, 7.88; cobalt, .21; phosphorus, .09. The specific gravity of the iron is 7.7. The colour of the exterior of the meteorite is a dull reddish brown. The mass is much oxidised, with a tendency to scale in small flakes. The fractured surface is more coarsely granular in structure than other iron.

WORKMAN'S MUSEUM, PARIS.—The modern workman is but a fractional man, and his fractional character springs from division of labour. To help the French artisan out of his fractional rut it is proposed to found a museum, or exhibition—kept permanently open—for the public display of manual work by workmen only. The painters, the sculptors, the engineers, have their salons. The workmen will now have theirs—the combination of artistic quality with utility is to be the test, as in the mediæval “master-piece.”

ETHNOGRAPHICAL WORK BY SWEDISH MISSIONARIES.—As a sequel to the exhibition of ethnographic objects collected by Swedish missionaries, to which we referred (vol. vii., p. 37; July, 1907), Baron Erland Nordenskiöld has just published with Palmquist, Stockholm, a quarto volume entitled “*Etnografiska Bidrag af Svenska Missionärer i Afrika*,” price 5 kronor. The contributions deal with the language, stories, songs, riddles, proverbs, names, religion, and habits of various negro tribes in the Congo region, and in their production several of the native inhabitants have collaborated with the Swedish missionaries.

PRAGUE, NÁPRSTEK BOHEMIAN INDUSTRIAL MUSEUM.—The late Josephine Náprstek has bequeathed 80,000 crowns

to this museum, which was established by Herr and Frau Naprstek, and is to a large extent ethnographical in character.

SOFIA.—A Bulgarian museum of natural history was opened in this town at the beginning of October.

A MUSEUM MICROSCOPE.—In the *Centralblatt für Mineralogie*, 15th October, 1907, pp. 615-624, Mr. Max Schwarzmänn, of the mineralogical-geological department of the Grand Ducal Naturalienkabinett at Karlsruhe describes two microscopes intended for the public gallery of a museum. Both are intended for mineralogical specimens, but one is to be used with ordinary light, while the other is adapted for polarised light, having special arrangements by which the Nicol's prism can be turned on and off and the stage partially rotated.

LINNÆAN PLANTS IN THE RIKSMUSEUM, STOCKHOLM.—As is well known, the original herbarium of Linnæus is in the possession of the Linnean Society of London. Professor C. A. M. Lindman, of Stockholm, has, however, recently been searching among the old collections of the Riksmuseum for plants which either belonged to Linnæus himself or had been distributed by him as authentic specimens to various correspondents. He has succeeded in recovering some 2,000 specimens, which have been gathered together into a Herbarium Linnæanum arranged according to the system of Linnæus. These specimens have been found for the most part amongst bundles of plants and in cases from the latter part of the eighteenth century, which in the course of years had been packed away in lumber-rooms owing to want of space, and were, of course, bound to suffer injury from dust, damp, and insects. Thanks, however, to the indestructible paper and to the old method of glueing the whole plant firmly on to the paper with isinglass, "these old specimens," says Professor Lindman, "are comparatively well preserved, and many plants look as if they had been quite recently prepared." The various herbaria by which the Linnæan plants now in question found their way to the Stockholm Museum were originally formed by the following:—Carl von Linné fil., Baron Clas Alströmer, Lars Johan Montin, and Daniel Charles Solander. These again contained specimens from yet older collections; thus we find Linnæan plants originally coming from the collections of Dahl, Wikström, and Casström, as well as from Linné's botanical garden at

Upsala, the last mentioned sent by the gardener Nietzel. After giving an account of the various collections, Professor Lindman proceeds in his paper (which is published in *Arkiv för Botanik*, Band 7, No. 3, 1907) to give a list of the various species. This will be completed in a future part.

MUSEUMS ASSOCIATION.

Treasurer :

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Hon. Secretary and Editor :

E. HOWARTH, Museum and Art Gallery, Sheffield.

Hon. Assistant Secretary :

E. E. LOWE, Museum and Art Gallery, Leicester.

The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of 10s. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

At Frankfurt a wise apportionment of space has been made, and there is a scientific staff more than sufficient to guarantee the continuation of scientific activity that has long characterized the institution. Laboratories have not been merely conceded; they have been deliberately provided.

The installation of material in the rooms designed for the public, has little more than begun, but it is sufficiently advanced to show that the exhibitions will be addressed to the public, and that collections designed for reference and research will not be on general display. Moreover, one can see that the exhibited material will be selected with discretion. Many of the specimens already displayed have extraordinary beauty; the dissections for example are particularly good and admirably shown. While in a few of the rooms, cases from the old museum are being used temporarily, the new cases are of the Dresden type, the older idea that cases should form a part of the architectural structure of a museum building apparently having met with disfavour. The growing popularity of the movable case is itself a gratifying indication of progress in museum development. Provision—indeed, elaborate provision—has been made for the installation of certain groups illustrating geographical distribution, but work upon these has not progressed to a point that would warrant criticism. It is quite clear, however, that the "group idea" is receiving serious attention, and we shall await with interest its final working out.

In other ways than merely because of the excellency of its appointments is the Frankfurt Museum of special interest to museum men. Although it is located far from any university, it clearly exercises upon the community the same influence of culture and refinement that one observes in a university town. It is independent of municipal appropriation and municipal control, but is nevertheless, fondly, indeed proudly, cherished by the people at large. It is a local museum, but it has justly won national recognition.

How to Promote the Use of Museums by an Institute of Museums.

By HUNTLY CARTER.

[Read at the Dundee Conference, 1907.]

THIS paper proposes to show how the problem of promoting the use of museums may be solved by the establishment of a central institute, which shall serve as a guide and an index to all local museums.

The two objects of museum collections are primarily and avowedly educational. They aim first to increase, secondly to diffuse knowledge. They seek to increase knowledge by affording the scientist facilities for the study and investigation of cosmic and human phenomena. Thus they offer him scientific facts of all kinds for extended observations, for explorations in natural history, geology and topography, for solutions of experimental problems, for anthropological, ethnological and historical researches. They seek to diffuse knowledge by making the facts of science and art clear, interesting and accessible to the public, in scientific specimens, artistic objects and curiosities of various kinds, and by affording instruction in all branches of natural, historical, social, and mental sciences. Since then their two main objects are research and instruction, museums can be said successfully to fulfil them only in so much as they so bring their collections, not only before the expert and advanced student, but the whole community, that their educational aspects may be seen and utilised by all. In other words, what museums really depend upon for their complete success and usefulness, is not their buildings, not their cases, not their specimens, not even their curators, but the number and intelligence of their visitors. Let their buildings and cases and specimens be the finest that can be obtained, their curators the most experienced in the world, their objects will be lost if they are publicly neglected, and thus fail to be active agents in the great educational movement of the age.

Museum visitors may be broadly divided into two classes, the scientific and the unscientific. The object of the scientific visitor is, as before suggested, research work. In order to facilitate this work, museum collections should have a unity of effect. Where this unity is lacking the scientist, expert though he be, is apt to see much of his time and labour wasted, especially if his efforts to discover the relationships and sequences of facts involve a tedious and minute examination of disjointed phenomena, scattered in widely separated museums. No matter how carefully arranged, how minutely classified, museum facts may be, without the advantage of being seen in their sequences in time and space, in their natural relations as the product of one great force, a tendency on the part of the expert, the teacher or the student to underestimate their value as a source of study and investigation is unavoidable. Perhaps when the hindrance that comes from the laborious task of sorting and sifting facts into one ordered whole, of evolving order from chaos is remembered, such a tendency may be considered reasonable, also.

It is not hard to imagine that there is no such unity of effect in museum collections when the present system of disjointed collections is considered. Instead, there is the inharmonious effect of a vast design composed of innumerable parts having no coherence, and lacking that degree of relation which alone conduces to the same mental impressions. In some such way as this, the scientist is expected to survey that great and ever-increasing field of study—the science of anthropology. Thus surveying it in these various and valuable centres of research and instruction wherein are represented many aspects of cosmic and human activities, in town, in city, in country, and in the world beyond, he sees man not as an organic whole, revealed in all his relations to society and the universe, but as a number of unrelated parts scattered here and there, in zoological and anthropological museums. Thus he sees here in some zoological museum the facts of man's physical structure, and there in some natural history museum

anthropological museum and art gallery, those of his mental development. He sees in the latter, evidences of all kinds of man's customs, traditions and languages, of his environment, of his occupations, of his human associates, in domestic implements, in weapons of war, in works of science and art, some disordered, others ordered and arranged in space and time, but none of them exhibiting that symmetry and unity which makes them of educational value and of general interest, as associated links in the evolution of man and his institutions. The inference is not only that there are many serious inconveniences attending these wide local disjunctions of collections containing subjects so closely allied as those included in the science of anthropology, but that these inconveniences are an active cause of the neglect of museums by the student of science.

In order to attract the second class of visitors the people—the form of museum instruction should be understood and appreciated by them. It may be said at once that it is not so understood and appreciated, and this for two reasons. In the first place, a museum represents that real scientific instruction, that knowledge of things as they are, which is obtained by the eye and the hand, and which requires a scientific frame of mind for its comprehension. It is a commonplace that the people do not possess this frame of mind. Everywhere there is evidence that they are verbally trained to ignorance in this direction. Alike in the home, in the street, in the shop, in the factory there is wanting the true scientific spirit of observation. Without this observation, and the clue which it yields to the relative value of things, and the power which it adds to get the ideas about them verified, corrected and extended, a general inability to grasp the significance of the vast educational resources of our museums, is inevitable. Perhaps if the people were merely unscientific, if they had no scientific knowledge, it would not be so bad. Then, like the savage, they would probably go to museums from sheer curiosity and though conscious of nothing but large buildings with fine promenades for wet days, with spacious glass cases

filled with fearful and wonderful objects, and illuminated by dazzling electric lights, might yet learn something, and, who knows? contrive in time to get civilised. But unfortunately they are prejudiced against science. They regard it much as the ancients regarded a witch, as a satanic instrument for turning milk blue. Hence their general opinion that science has no ideals of life to offer; that it is a means of check-mating the spiritual state, and scientists are an organised body for weakening the administrative power of that state. Hence, in a word, their complete indifference to everything outside their own private affairs, and their apparent neglect of public institutions established for their instruction.

In the second place it is the fault of museums to offer very large collections of various objects having no familiar harmonious shape to seize and hold the untrained attention. It is true that these objects are carefully arranged and classified. But classification is, after all, a convenience to order materials which makes no appeal to the unorganised mind. It is by things forming a definite congruous whole that such a mind is claimed and rivetted, by the clearly defined image that it becomes imbued with scientific facts, by the known that it passes most readily to the unknown. In this respect the arrangement of the Liverpool natural history museum is instructive. Hence the smallest group of facts, if properly organised, will form a concrete image which will faithfully serve to instruct the unscientific mind. Without this organisation of parts, this bringing together of groups of facts so that their relationship is seen, and the laws which bind them together are recognised, without, in short, an appropriate and, to some extent, a popular coup d'oeil, a general blindness to the utility of museums as a field of popular instruction must result. If it be objected that the people do visit museums in large numbers, then the answer must be, they do so more by accident than design, and till there is evidence to the contrary the conclusion must be that they go not for instruction but for convenience. Till then it may be assumed that many go quite heedless of

what they are going to see ; others because they have a notion it is considered correct to take a walk among a multitude of novel, beautiful and costly things ; others again because they feel it their duty to patronise an institution that makes no charge for admission, on the human principle of getting something for nothing. In such ways, then, museums fail so to bring their collections before the expert and the community that their many-sided educational significance is seen and utilised. To promote the use of museums two things would then seem necessary—an arrangement of their materials whereby they may be seen, studied and remembered with some unity of effect ; and the formation of a scientific frame of public mind.

The necessary unity of effect may be obtained in two ways. One way would be to include in one great institution the various local collections comprising the different fields of the entire domain of extant science and art, so placed as to display their mutual relations, and to enable the resources of each to be used for the interpretation of all others, thus forming an ideal collection affording a survey of the whole history of civilisation, a view alike of its roots in the past, its flower in the present, its seeds of future years. Such an institution may be dismissed as impossible, even if the money for its establishment were forthcoming. Another and more feasible way would be to visualise local collections in a central institute specially designed for this purpose.

This institute would aim to synthesise the collections of the various kinds of museums and to analyse and describe systematically the materials of which these collections are composed. Thus it would so co-ordinate museums that they would appear no longer as detached places of interest, but as one vast picture of cosmic and social life and activity with every touch in it organic to the whole. Such a condensed and harmonious view of that great world or city structure whose ordinary proportions are beyond the vision of any individual, is bound to exercise a deeply impressive effect upon the minds of those who contemplate it.

As an instance of an effect so obtained Professor Geddes' outlook tower at Edinburgh is well worth consideration. This tower contains in a single building the history and geography of Edinburgh. Its aim is set forth in an orderly progressive and simple survey of the rise and progress of the city, its inhabitants and their activities, and their relations to each other and to the universe ; and is attained by various visualising objects which, though very numerous have undoubtedly a unity of purpose in them. There are, indeed, no objects tending towards an incongruous impression, but each has been placed with a regard to the symmetry and unity of the whole. There is, in places, only an absence of them, tending to rouse a feeling of incompleteness ; sufficient have been gathered to complete the design, but not to fill in its details. Thus the visitor though able as he progresses to take an entire survey of the city, and so to become gradually educated to an appreciation of it and its many-sided absorbing interest, finds his vision blurred by occasional gaps, which he must fill in for himself. It is as though he made his survey from a splendid building which is unable to throw off its scaffolding for want of proper outside support.

What is wanted is then the establishment of a somewhat similar institute, free of the scaffolding of unendowment, for the complete visualisation, organisation and indexing of the educational resources of local museums, and this in every city and town throughout the Empire. Briefly, it should consist of one lofty, spacious, circular hall designed first to visualise museum facts, to group them into frescoes, having the charm of living pictures, by means of maps, charts, plans, diagrams, photographs, drawings, &c., secondly to unify these facts so that their identity may be detected and the uniformity of principle and method underlying them seen by all. To secure this unity it is necessary to group cosmic and social facts into classes, to combine the facts obtained in each class into organised structures, to place these structures part to part, so that their common principles become apparent.

The preliminary classification to be adopted, equivalent to our classification of biological facts into organism, function and environment, would be in the three planes of people, work and place. Each of these planes would be divided, the first or lowest plane into three sections, natural history, anthropology and sociology, or groups of facts on the evolution of man, his racial and social groupings; the second or middle plane into five sections of food, clothing, shelter, transport and sport, or facts on the evolution of the occupations of man; the third or uppermost plane into five sections of topography, geography, geology, meteorology and astronomy, or facts on the evolution of the environment of man. Each of these sections would be again divided into elementary series. These series would be so arranged as to reveal the general laws connecting them and their parts together. Thus in the lower plane man would be seen in his relations to organic and inorganic phenomena, in process of evolution from the ethereal to the social order. Accordingly, natural history would be divided into the three great classes of facts on the descent of man, arranged in three planes. In the uppermost plane would be facts on the evolution of plant life from the primary germ, *i.e.*, on bio-physics, atomic physics, molecular physics, and physics of ether. In the middle plane those on the evolution of animal life from plant life. In the lowest plane those on the evolution of human life from animal life. By a sub-division of these planes into the three sections of embryology, anatomy and physiology, their facts would be made not only to exhibit in varying degrees common characteristics, such as in animals and men, rudimentary structures, bones, muscles, organs, &c., but to afford the necessary data for a comparative study of all branches, as well as a comprehensive view of the genealogical tree of man. Anthropology would likewise contain three classes of facts on man as man, arranged under comparative embryology, comparative human anatomy, and comparative physiology. By this classification would be revealed points of resemblance between the

most distinct races of man. Sociology would afford a similar classification of facts on man as a social and rational being, arranged under social embryology, or the beginnings of social groups, social anatomy or the structure of social groups and social physiology, or the functionings of social groups. These sections would be subdivided into intellectual, aesthetic, moral and emotional sections, or those dealing with philosophy, science (such as social, political, economic, jurisprudence and educational), art, religion, literature, in order to reveal the deepest and most general resemblances of the facts classified.

In the second plane, man would be seen to have risen above the animal region, and the chief purpose of the classification is to enable all the facts on the enterprises of social man to be correlated and studied. The three-fold classification to be adopted—answering to that in the lower plane of embryology, anatomy and physiology—would be into the three divisions of exploitation, manufacture and consumption, or production, distribution and utilisation. Accordingly, under food, as first in order of human needs, would come the three classes of facts on alimentation, the raw materials of alimentation, apparatus and processes of manufacture, foods and their consumption. Under clothing, as the second in order, those on artificial (cotton, wool and skin) protective covering; sources of materials of clothing, apparatus and processes of vestimentary arts; clothing and its uses. Under shelter, as the third in order, those on artificial (stone, wood and iron) protective covering; sources of materials of shelter; apparatus and processes of constructive arts; architecture and its uses. Under transport, as the fourth in order, those on locomotion; sources of materials of transport; apparatus and processes of technological sciences; vehicles and their uses. Under sport, as the fifth in order, those on sport; sources of human energy; apparatus and processes of utilisation of energy; sports and their uses.

In the third or uppermost plane man would be seen, so to speak, in a realm which he is fast making his own, and

the aim of the classification would be the presentation of facts bearing on his obedience to and control of the forces of nature. Here also, there would be a threefold division into origin, structure and function. Thus, under topography would be facts on cities, towns, &c., in order of their inception; planning and building; and utilisation. Under geography, processes of the formation of the earth's surface; its divisions natural and artificial, its utilisation through the agency of geotechnics, agricultural chemistry, hydromechanics, &c. Under geology, the processes of the formation of the earth beneath the surface; structure, utilisation of its various formations through mineralogy, inorganic chemistry, &c. Under meteorology, origins of the molecular constituents of the air; structure; utilisation as light, heat, electricity, magnetism, through aeromechanics, molecular physics, &c. Under astronomy, origin of celestial bodies; structure; utilisation of energies through solar and sidereal physics, &c.

The final classification to be adopted would be of the whole field into three horizontal historical divisions, or those relating to the past, the present and the future.

Along with each series would go a classification and organisation of the corresponding materials in local museums, institutions, parks, gardens, &c. Thus, in London, with Natural History, Kew and Royal Botanical Gardens and South Kensington Natural History Museum; with anthropology, South Kensington Natural History and Horniman's Museums; with zoology, the Zoo; with geology, Jermyn Street museum; with technology, Victoria and Albert museum, &c.

Thus the whole phenomena of nature and man, and the enormous wealth of educational material relating thereto, would be organised in one view, and thus would be attained the unity of effect which is the first essential for promoting the use of museum collections.

The second essential is the formation of an observational attitude of public mind. The readiest means of cultivating such a frame of mind would be by changed methods of

education, entirely reversing the old order, promoting the eye to be chief educator and transferring attention from crude symbolical impressions to the initial phenomena with which they deal. Accordingly there would be fresh concrete images or emotional arguments to awaken curiosity and interest; images of similarity and contrast, *i.e.* parts shown in detail as well as in their places in the general system of things, to rouse the powers of observation and reasoning; things in process of evolution to create a sense of real activity and to give impulse to the imagination. In short the particular frame of mind would be formed by a new method of education having recourse first to symbols expressing intricate syntheses of facts, secondly to the facts themselves in museums, thirdly to an explanation of these facts by lectures in a suitable lecture centre. That the above mentioned institute of vision would best serve the purpose of this educational centre and thereby combine two important objects, is apparent on reflection. In such a place an efficient course of instruction in the form of illustrated lectures by a group of scientists representing all the sciences could alone be given.

This lecture group would consist of eminent authorities on the various subjects to be dealt with. Its function would be to disseminate ideas on physics, botany, zoology, anthropology, on general, religious, moral and economic sociology, on human institutions and industries, on geography, geology, meteorology and astronomy by means of illustrated lectures and thereby to awaken public interest in, and to furnish guides to gardens, museums, institutions, great factories and workshops. Perhaps the chief value of its work would be in a strict regard for evolutionary teaching, in an endeavour to give the public clues to the lines along which evolution has travelled and to help it to trace the innumerable branchings. In this connection a course of lectures would be arranged bringing before the public in a brief but connected series a general idea of what we call evolution, organic and social, first of the planets and stars, then of the earth, then of the life upon the earth, then of

the mind of that life, or physical agents producing man ; man himself ; his occupations and institutions. This would tend to awaken interest in the universal and if followed by a course of lectures in international history showing our relations to the world, should lead to a public understanding of the significance of the world's social movements. The significance of the world's physical disturbances would be explained also, and the relations shown between the revolutions of nature, such as the Jamaica earthquake and other calamities within the earthquake zone, and the revolutions of nations, while a means of answering questions that might arise with the new knowledge would be afforded by the mapping out of museums containing materials for the investigation of the history and causes of these revolutions, something as follows : if a physical revolution is referred to, astronomy, meteorology, geology, natural history, &c. ; if a social, facts of history, elements of civilisation, &c., and when possible a view of probable effects. Of equal importance would be a regard for heredity teaching, seeing that the teaching of evolution must be based upon it. Here the endeavour would be to instruct the public in the part that inherited traits, character, virtues, vices, capabilities, temper, diseases, play in the destinies of men ; the part, too, that variation plays in the lives of successive generations of men ; and to teach it to distinguish and to estimate truly the relative value of organic and social inheritances. While an attempt would be made to popularise such branches of the subject of heredity as selection, variation and immunity. A further aim would be to awaken the unscientific, the ignorant and untrained to the importance of a particular application of scientific knowledge in their own special field of industry.

Thus, by a union of lecturers the public would be instructed through lectures, through experiments, through observation in the perception and perhaps in the application of those scientific principles which underlie life ; and thus led to an appreciation and increased use of museums.

Briefly summarised the advantages the proposed institute would aim to afford are as follows :—

I. OBSERVATIONAL—

- (a) To afford a concrete view of the universe, its peoples and activities.
- (b) To afford a scientifically accurate and complete analysis of the same concrete view of place, people and work by means of models, pictures, diagrams, bibliographies, indices, &c.
- (c) To afford a view of such museums as come within a study of the facts of this view.

2. INVESTIGATIONAL—

- (a) Education. To promote the scientific education of the public by encouraging active investigation of facts on man, his occupations and environments.
- (b) Index. To form a complete guide and index to all local museums ; to provide information that may be required by the citizen or visitor as to the resources of these same museums ; to suggest to those who contemplate work in any department of science, practical help in a brief account of the usual methods of investigation. That is, how to observe, select, classify, compare, verify, record facts, where to seek them, the best instruments of discovery, personal and impersonal. Also the comparative value of the teacher and personal observation as instruments of inquiry.

Museum Publications.

Cambridge.

The 41st annual report of the Museums and Lecture Rooms Syndicate for 1906 opens, naturally enough, with a reference to the death of Professor Marshall Ward, and a cordial recognition of the work he had done in the univer-

sity. The botanical department has been enriched by the transference of Charles Darwin's scientific library. These, valuable works, rendered still more valuable by numerous MS. notes, are the gift of Mr. Francis Darwin; a catalogue of them will shortly be issued. In the museum, attention has chiefly been directed to the collection of wood specimens. Of these, 200 specimens have been mounted, most of them in transverse and longitudinal section, some in tangential section as well. To the collections of invertebrata have been added—among numerous other acquisitions—several species of tse-tse fly, including *Glossina palpalis*, which is believed to be the carrier of the trypanosome parasite of sleeping sickness. The vertebrate collections have received numerous additions; amongst others, two specimens of Przevalsky's Horse (presented by the Duke of Bedford), and many birds from the late Professor Newton, including the flightless grebe from Lake Titicaca. The museum now possesses specimens of almost every kind of bird that has become flightless. The acquisition of the Harris collection has made the museum unusually rich in foreign tertiary mollusca. But the collection in question cannot at present be utilized for want of cases.

Worcester.

Mr. Edwards has published an interesting pamphlet entitled "the museum as an Index to the Flora, Fauna, Geology and Antiquities of Worcestershire." This little work begins with a history of the Worcester museum from its foundation, in 1833. Full justice is done to the old Natural History Society, to whose activity and public spirit the museum owes its present high position. A brief survey of the collection is then given. Attention is called to the exhibition of freshly gathered specimens of fungi and of flowering plants. It is also pointed out that there is much room for work upon the porifera, vermes, polyzoa, crustacea, arachnida, and myriopoda; these groups have so far been almost entirely neglected. The county mollusca are well represented, and the acquisition of the

Fletcher collection has given the museum an admirable series of insects. Fishes, batrachians and reptiles are poorly represented, and the mammalian collection leaves much to be desired. Among the specimens in the last is the so-called "wolf" killed near Redmarley. The collection of birds is much more satisfactory. It includes many noteworthy specimens, not the least interesting of which is the last raven seen in Worcestershire. The bird in question was killed by a game hen. The geological collections are good and representative on the whole, but attention is called to several gaps in the department of antiquities; palæolithic remains are practically absent, but neolithic, bronze, Roman and Saxon times are fairly well represented. Mr. Edwards in his excellent pamphlet—which he declines to call a "guide"—makes a special point of directing his readers' attention to desiderata of the museum. An elevation and a ground plan of the institute are prefixed.

Burnley.

The museum authorities have again been successful in holding two exhibitions in 1906-7, but they point out in the present report that the citizens must not expect that similar success will always attend their efforts, and they express a hope that Burnley may soon possess a permanent collection. The summer exhibition was visited by over 98,000 people, the pictures were lent partly by private collectors, partly by the corporations of Salford, Leicester, Blackburn, Oldham, Preston, and Nottingham. The works for the winter exhibition were transferred from Plas Mawr, Conway (the home of the Royal Cambrian Academy); there were 9314 visitors. Several gifts have been made for the "Old Burnley," collection, which is rapidly becoming an important feature of the museum. The committee appeals for donations of relics connected with the past history of the town, that they may still further develop the room. The collections have received a notable addition from the late Mr. George Easthood, who has left the museum his collection of carved ivories.

Cardiff.

The report on the Welsh Museum for the year ending March 31st, 1907, naturally deals at some length with the further steps taken towards the establishment of the National Museum. The executive committee considered the treasury's proposals to contribute £20,000 towards the erection and equipment of the museum, and £10,000 towards the National Library, and also half the cost of maintenance provided that the other half be provided locally, and that the total cost of maintenance of museum and library do not exceed £10,000 annually. It was decided to petition that the grant for maintenance should be made irrespective of any condition as to local contribution. A sum of over £23,000 (including £7,500 from the museum committee) has been collected towards the erection of the new buildings. The Royal Charter, providing for the foundation of the National Museum and the constitution of its governing body, was signed on March 19th, 1907. The general museum work has progressed steadily. Several new plate-glass cases have been set up and fitted with electric light, and are being used to illustrate such important and interesting principles as protective colouring, warning colouring, mimicry, &c. In the department of art, the committee has adopted several important resolutions. It has wisely been decided that while the collections should exhibit particularly Welsh work (provided that it attains a proper standard of excellence), art work in general should not be neglected, especially in its modern developments. Noteworthy additions have been made to the collections of antiquities. The most remarkable is a bronze Roman patella and strainer found near Langharne in Carmarthenshire about 70 years ago; it was for a time lost sight of, but has been recently found and handed over to the museum. The section of antiquities known by the appropriate name of "bygones" has been largely increased. The committee earnestly appeals to all Welshmen to help in making this collection as full and representative as possible.

Liverpool.

The new galleries were opened on October 19th, 1906, by the Earl of Derby in the presence of a brilliant company. Among museum representatives were Dr. Hoyle (Manchester), Dr. Hartert (Tring), and Mr. C. E. Fagan (British Museum). On this occasion, Dr. Permewan (Chairman of the museums sub-committee), mentioned with justifiable pride the statement of Dr. Meyer, that Liverpool possessed a museum which was, next to London, the most comprehensive and in all respects one of the best in Great Britain. He also paid a well-deserved tribute to Dr. Forbes' wide knowledge and special aptitude for museum work. The natural history and ethnographical collections have received nearly 80,000 specimens during the past eleven years; this alone would be evidence of an enormous amount of work. Much work has been done in the Local Area collection, especially with regard to the birds and lepidoptera. The latter have been re-set and arranged so as to allow of ready inspection. Much activity has been shewn in lecturing, both in general lectures and in those given to teachers and children. Of the latter, about 4,000 attended during the year, while an average of 225 pupil teachers attended the special lectures given for them. The total number of visitors during the year was 453,328. Nor was the external policy of the museum neglected. The director attended the Anthropological Congress at Monaco, and the assistant curator of the Derby Museum took part in the Museums Association Conference at Bristol. The autumn exhibition in the Walker Art Gallery was eminently successful, and the interest shewn in the permanent collection may be gathered from the fact that the attendance for 1906 (403,592) shews an increase of over 50,000 on that for the previous year. The Historical Exhibition of Liverpool Art, originally fixed for May, 1907, has been postponed to the Spring of 1908.

British Museum.

A GUIDE TO THE FOSSIL INVERTEBRATE ANIMALS IN THE DEPARTMENT OF GEOLOGY AND PALÆONTOLOGY IN THE BRITISH MUSEUM (Natural History), LONDON.

The excellent series of guides to our national collections in the British Museum, published by order of the trustees, is of great service to the numerous students who visit that institution, and the one referred to above, recently issued, certainly merits the praise bestowed upon its predecessors, as it will prove equally useful. This guide is ably written by Dr. Francis A. Bather, with the assistance of other members of the staff, and the information which it contains is brought quite up to date. A legible plan of the galleries containing the fossil invertebrates, and bold marginal references to it in the text will enable the visitor to find, with facility, any group in which he may be specially interested. While the descriptive matter postulates as much knowledge on the part of the reader as is contained in the corresponding guides to the department of zoology, certain extinct groups are of necessity dealt with more fully than those having representatives living at the present day. The method of labelling is very wisely explained, so as to prevent confusion in the student's mind arising from unfamiliar nomenclature. The guide is embellished with seven plates that are good in every way, and the numerous figures help to an understanding of the text which renders them well-nigh indispensable. Curators who undertake the compilation of handbooks should find this guide of help to them in their work.

Bristol.

A CATALOGUE OF THE AUTOGRAPH MANUSCRIPTS AND OTHER REMAINS OF CHATTERTON NOW IN THE BRISTOL MUSEUM. Edited by W. R. Barker; 6d.

Alderman Barker, chairman of the museum and art gallery committee, Bristol, has brought together in this little pamphlet a succinct account of the interesting manuscripts of Thomas Chatterton, the boy poet, who was born at Bristol in 1752, and died in 1770. Mr. Barker has not

attempted any connected biography of Chatterton, simply contenting himself with giving the history of the manuscripts, and the cause of their origin. A recent gift has made this book possible, and Bristol now possesses many valuable historical relics of its gifted son, and that they are adequately prized is shown by the compilation of this useful catalogue. There are several illustrations, amongst them being the cottage in which Chatterton was born, "the death of Chatterton," a copy of the marriage certificate of his father and mother, with the birth-register of their children; also a facsimile of the first page of his will, and another facsimile of his satire on Walpole. Besides the original Chatterton manuscripts, there are authorised copies of others, and letters from contemporaries relating to Chatterton, including one from Robert Southey.

U.S.A.

CONTRIBUTIONS FROM THE UNITED STATES HERBARIUM, Vol. X., Pt. 4.

The *Leguminosae* of Port Rico, by J. B. Perkins. Washington, 1907.
Crown 8vo., pp. 133-220.

According to the Author's account, the genera of *Leguminosae* occurring in Porto Rico, which are 67 in number, may be divided into four classes, viz., those occurring only in Porto Rico, including only one genus out of the 67, and eight species out of the 141 known; those found in the other Antilles; those that appear also in Mexico and South America; and lastly, the cosmopolitans. The genus *Stahlia*, and the following species, are said to be peculiar to the Island, viz., *Cymometra portoricensis*, *Cassia Stahlia*, *Cassia portoricensis*, *Sabinea punicea*, *Aeschynomene portoricensis*, *Lonchocarpus glaucifolius*, *Rudolphia volubilis* and *Schrankia portoricensis*. The descriptions of the species have the additional value that the author has seen a large number of the plants in the living state. A synopsis of the genera is given, and synonyms of the genera only, also a key to the species; but numerical references to Urban's synonymy of the species in "Symbolae Antillanae" are appended to each species. The native or local names are

given under each species, and occasional notes concerning the economic uses of the plants. These notes are not, however, the strong point of the author, thus the nature of the poison of *Abrus precatorius* does not appear to be understood, and the use of the root of *Krameria Ixina* as an astringent is not alluded to. Urban has been followed as to nomenclature, although a few names from the Kew Index have been used.

The work will undoubtedly be useful to botanists visiting the West Indies.

Ontario.

ANNUAL ARCHÆOLOGICAL REPORT, 1906. Appendix to the Report of the Minister of Education, Ontario. Toronto, 1907.

The recently published annual report of the Toronto museum affords proof that the interest in this institution is being maintained, and quite a number of ethnological specimens from the Pacific are recorded among the acquisitions, in addition to specimens illustrating Canadian ethnography. In figuring the designs on a pemmican bag it is a pity that Mr. Boyle did not adopt the heraldic conventional manner of recording colours, but this is a fault that is very frequently committed, especially in publications coming from the United States. Mr. Boyle appears to be ignorant of the memoir of Dr. Kroeber on the symbolism of the decorative art of the Arapaho (*Bull., Am. Mus. Nat. Hist.*, New York, Vol. XVIII., Pt. 1, 1902), in which numerous decorated rawhide bags or parfleches are described. The report contains three plates of metal ornaments of European make worn by Indians; some of them appear to be Scandinavian in type. The pictographs, illustrated by Mr. W. H. C. Phillips, on five plates, are worth recording, although here no definite information could be obtained concerning these rock paintings.

Colombo.

"*Spolia Zeylanica*," issued by the Colombo museum August, 1907, vol. iv., pt. xvi., contains as usual several articles of great interest. Dr. A. Willey contributes a short

but interesting article upon the Sign of the Tortoise and its use by the Sinhalese as a religious symbol, and in native medical practice. The native herbalist during the manufacture of his medicaments and in the accompanying incantations is seated upon a low stone stool carved in the form of a tortoise and having the same symbol incised upon its upper surface, the reason being that the efficacy of the medicines are much increased thereby. The same symbol more or less conventionalised, is frequently branded across the loins of weak or sickly cattle, evidently with a view to aid in their recovery.

J. L. Thomas gives the results of further hybridisation experiments with the Ceylonese Jungle Fowl, from June, 1906 to June, 1907. Whilst the results still remain as a whole inconclusive, they seem to show that hybrids between domestic hens and the jungle fowl, are not sterile amongst themselves, or when bred back to the domestic parent, but that the fertility is low. The fact that they can breed however, cannot now be adduced as it was by Darwin, as a proof that the *Gallus Stanleyi* is not a parent stock.

Major F. Wall describes the sea snakes in the Colombo museum. The series is comparatively unimportant, but ten species being represented. The writer contrasts the paucity of species and specimens with their great abundance along the coast of India. A new lizard of the genus *Lygosoma* is briefly described by G. A. Boulenger, and there is an interesting series of notes by various observers. Dr. Willey calls attention to the kindly offer of a Boer Commandant (in Ceylon as a prisoner of war) of his services in mounting and re-mounting specimens of natural history. As Commandant Krantz was a professional hunter and an expert taxidermist the Colombo museum profited greatly by his help, and the instruction he gave to the local taxidermist.

Oberlin, Ohio.

The Wilson Bulletin, Nos. 58 and 59, March and June, 1907, published by the Wilson Ornithological Society of Oberlin, Ohio, U.S.A., largely occupied with notes of

local birds, the chief paper being one by the Rev. W. F. Henniger upon the *Paridæ* of Germany. The author's description of the appearance and habits of the various members of the *Tit* genus is extremely good, and evidently from personal observation.

Pennsylvania.

The Zoological Bulletin, Division of Zoology, Pennsylvania, Department of Agriculture, Vol. V., No. 5., Sept., 1907, for September, 1907, is entirely occupied by an article by the Economic Zoologist upon "How to make a collection of Insects." It is intended mainly as a means of helping the pupils of schools in taking up this branch of nature study, and gives all the directions, as to apparatus required, where to collect, and methods of mounting, which all beginners are likely to want.

Books for Museums.

THE ART OF THE DRESDEN GALLERY: & Critical Survey of the Schools and Painters as represented in the Royal Collection. By Julia de Wolf Addison. London: Geo. Bell and Sons. 1907. 6s. net.

Not only is the Sistine Madonna the dominant feature of the Dresden gallery, but its fame is often the impelling force that draws the art lover to that favoured German city, where he may miss much of the cultured value of its art treasures if his mind is obsessed by this most perfect of all art creations. Mrs. Addison's book is a broadening corrective of this idea, and marshals with discriminating skill the merits and demerits of the various schools and painters represented in the Dresden art gallery, easily avoiding pedantry and art jargon.

The Dresden gallery owes its origin to princely appreciation of art as is the custom in Germany, for the art treasures of Munich were first gathered together by the Kings of Bavaria and practically in our own days the Berlin gallery was brought into existence by the reigning Prussian Princes. The collection at Dresden was started by the Elector

Augustus as a private art gallery in his own apartments, and as a public or state gallery in 1694 by Augustus the strong; his successor, Augustus III., with whom the Augustan age in Saxony came to an end, extending the work of his predecessors. Princely resource and wealth were thus available to acquire treasures of art from contemporary artists through a period when painting stood at a high level, if not its supreme one. Later broader management than that of an individual prince, judiciously filled in gaps, and kept up the historical continuity of the collection to the present time. No handier guide to this large and representative collection could be desired than this charming little book. The general arrangement of the pictures is indicated, and plans given of the various floors, then the different schools of painting are described from the examples exhibited.

Beginning with the early Italians, Raphael and Correggio, then come the great Venetians followed by the later representatives of Italian art. Spanish, Early Flemish, Dutch and German pictures come next, special chapters the modern painters completing the book. being devoted to Rubens and Van Dyck, and Rembrandt,

As a critical survey the book is not very profound, yet it is written from a wide knowledge of art, a keen appreciation of its motive and purpose, a practical acquaintance with technique, and a cultivated judgment that inspires confidence in the views expressed.

There is a very charming frankness in the descriptions of the pictures, both as regards their subjects and their art qualities, that makes them mentally distinct and readily understood. Apt and varied, without ever being laboured or wearisome, the remarks on the various works incisively bring out the true merits of the paintings, and will enable anyone to obtain a comprehensive knowledge of the chief artists and their work that will greatly simplify further studies. It is a delightful guide, racy, discreet and informative, chatty if not profound, and selective with sincerity. There are between 40 and 50 illustrations

which do not conform with the clear luminous character of the text, and might have been produced by some method that would have more effectively given a clearer conception of the quality of the works reproduced.

SHEFFIELD PLATE. By Bertie Wyllie. London: Geo. Newnes. 7s. 6d. net.

Considering the great interest that for a long time past has been taken in Old Sheffield Plate it is rather surprising that no literary attempt has previously been made to deal with the subject in an adequate degree. Hitherto only bald references could be found in works on silver or in museum guides, and recently a short meagre pamphlet on the subject was published by a Sheffield manufacturer. The history of this subject from the art and industrial position remained to be written until Mrs. Bertie Wyllie's book appeared, and though she has not exhausted the topic, she has produced a most useful work, that will be of immense service to collectors, whether private individuals or public museums. Mrs. Wyllie has been a collector of old Sheffield plate for several years, and in order to make herself practically acquainted with it she spent a considerable time in Sheffield inspecting old dies, pattern books, and gleaned such information as she could from the old workmen who had actually produced it, for half a century has scarcely elapsed since old Sheffield plate was entirely superseded by electro-plate.

In her first chapter she deals generally with the fashion that has brought this plate into favour and she shows such hearty appreciation of it that she advocates a resuscitation of the industry. She also, rather unwisely we think, tries to introduce the new name of "Copper Rolled Plate" for it instead of its recognised designation, a change that does not help description, and may easily cause confusion, for the great feature of it was not that it was rolled copper but that it was thin silver fused on to thick copper and then rolled out. There are also other technical terms which the author has not completely mastered.

A history of the discovery and the early manufacture is given, together with details of the methods of producing it, which will enable anyone clearly to understand the difference between old Sheffield plate and electro-plate. A chapter is devoted to the methods of judging it, knowledge that is of great importance now that the specimens have become so valuable as to invite imitations. The best and most complete list of makers and their marks that has ever been brought together is published in this book, and though a good deal of old Sheffield plate bears no trade mark whatever, those given here will be extremely useful in determining genuine pieces without requiring special technical knowledge. The concluding chapter treats of the periods and designs most prized, and includes a list of the names of the articles manufactured in old Sheffield plate. These are illustrated in the 120 excellent plates inserted in the book, which is a work that no museum or private collector can afford to be without. Indeed, Mrs. Wyllie has put them under a debt of obligation for thus so ably elucidating a puzzling and much prized industry.

General Notes.

CORRECTION.

An unfortunate error has crept into Mr. Watts's reply on page 169 of the *Journal* for November. He is made to say: "I do not think it is quite practicable to increase the interest, &c."; what he said was really the opposite: "I think it is quite practicable, &c." The chief object of his paper was to call attention to this side of museum work.

AT HOME.

MUSEUMS ASSOCIATION.—At the meeting of the executive committee, on December 2nd, 1907, the following resolution was adopted and sent to Mrs. Maclauchlan: "That this association desire to express their profound sense of the loss sustained by the death of Mr. John Maclauchlan, president for the year 1906-7, who had been a member of the association for 16 years and had always

taken an active part in its proceedings. His wide knowledge and culture, his wise counsel and ever ready assistance placed at the service of the association had largely contributed to its success and advancement, and his removal will be felt painfully by every member, to whom he was always a kind and sympathetic friend. The committee desire to assure you of their deep sympathy in your bereavement, which, felt most by you, is a personal grief to every one connected with the association."

The following members have recently joined the association: Ordinary—Library of Congress, Washington, U.S.A. Associate—Ernest C. Chubb, F.Z.S., Rhodesia Museum, Buluwayo; Robert J. Brogden, 28, Colville Square, London, W.; Dr. A. Jacobi, Zoological and Anthropological Museum, Dresden; H. Walker, 37, Briggate, Leeds; D. J. Taylor, North Street, Midhurst, Sussex.

THE WOOD NORTON MUSEUM.—Not the least of the attractions at Wood Norton is the fine museum containing trophies obtained by the Duc d'Orleans, in the four quarters of the globe. These have been mounted and arranged by Mr. Rowland Ward, and probably form a unique collection, since all the specimens were obtained by the royal owner, or by expeditions under his command. Among the more striking groups are a tiger and elephant, a snow leopard attacking a wild sheep, fighting lions, a lioness that has stricken down a zebra, polar bears, walruses and seals in natural surroundings, and chamois from the Carpathians. The separate trophies include the Orleans elephant from North Somaliland, a new form recently named in honour of H.R.H., the record head of Watter's gazette, a fine Cape buffalo, an American bison, a woodland caribou, and a gigantic Alaskan bear. On the walls hang heads and horns of deer, antelopes, bison, musk oxen and wild sheep and goats. If one knew the stories of them all one could piece together a narrative quite as entrancing as that told by the Duc himself in his account of the voyages of the "Belgica." Some of the Arctic trophies were exhibited this last summer at the Sporting Exhibition at Antwerp, where they were much admired, and for them the Duc was awarded a diploma.

A NEW WINDSOR MUSEUM.—Recently the opportunity was offered of securing an interesting house, which must have been in existence at the time of Shakespeare. It is now known as 7, Church Street, and was formerly the "King's Head" Inn. Alderman Barber purchased the

freehold of the house and has since had it restored, including a renewal of a portion of the roof. All the oak beams have been stripped of their many coats of paint, and in carrying out this work an inscription of "The King and Constitution" appeared in old black lettering on one of them. The principal rooms are now furnished, and a large number of articles collected by him during the last 30 years appertaining to Windsor are there displayed—forming a small museum. Besides preserving the oldest house—an excellent example of domestic architecture—in this quaint street, it should prove another attraction to the Royal Borough. The room on the ground floor contains Early English oak furniture, weapons and souvenirs of Shakespeare, including a piece of an old oak beam from "The old Garter Inn" (where "The Merry Wives of Windsor" is said to have been written), old portraits of the Bard, a copy of Ben Jonson's play "Silenus" (1603), in which Shakespeare appears as one of the actors, a replica of the 1623 edition of his works, and many other interesting articles. In the first floor front room are a number of authentic souvenirs of royalty, amongst which may be specially noted a piece of hair of Edward IV.'s, a pearl from the robe of Edward I., in which he was buried (found in his coffin upon the opening of his tomb in Westminster Abbey on Monday, May 2nd, 1774, 417 years after his burial), ball tickets of the Jubilee of George III., Coronation medals of George I., II., and III., Jubilee medals of George III. and of Queen Victoria, wedding favours of the late Empress Frederick and King Edward VII., piece of Queen Charlotte's Court dress, Sir G. Wyatville's original designs for the alterations at Windsor Castle, and a large number of scarce engraved portraits of royalty, and views of the castle; also a painted chair with the seat embroidered by Queen Charlotte, a chair from George IV.'s pavilion at Brighton, and a chair used at the coronation of King Edward VII. at Westminster Abbey. In the back room, over-looking St. Alban's Street, will be found the recently acquired and original cartoons for the Windsor tapestries of Osborne, Balmoral, Buckingham Palace and Windsor Castle, and a specimen of stained glass made in Old Windsor factory; Charles Knight's (1785) "Windsor Guide," "Royal Windsor Guide" (1837) with a list of the coaches running, "Oxley's Guide" for 1852, Archdeacon's "Royal Windsor Directory" (1851), a manuscript copy of the Charles II. Charter, and many other items of intense interest to citizens of Windsor.

COLLECTION OF OLD FURNITURE.—Miss G. Jekyll, author of several gardening works, and who undertook the laying-out of the grounds at the King Edward VII. Sanatorium, has presented to the Surrey Archæological Society her collection of old cottage furniture, ironwork, and objects of domestic antiquity. The collection is believed to be of its kind unrivalled in interest and value in England.

THE NATIONAL GALLERIES OF SCOTLAND.—The Board of Trustees for the National Galleries of Scotland decided, some months ago, that it would be advisable in the interests of the National Gallery and the National Portrait Gallery to make certain transferences of works of art from the one to the other. This resolution has now been given effect to by the director of the galleries, Mr. James L. Caw. A few portraits, of which the interest was primarily historical, have been transferred from the National Gallery to the Portrait Gallery, and others in which the artistic interest predominated over the biographical, have been brought from Queen Street to the Mound.

MANCHESTER ART GALLERIES.—The Manchester art gallery committee state in their report just issued that the public show continued and increasing interest in their collection of pictures and other works of art, 848,878 persons having passed the turnstiles in the central gallery during the twelve months of 1906-7. At the exhibition in this gallery, that which lasted from September 18th, 1906, to January 10th, 1907, the number of free admissions was 122,803. From December 3rd, 1906, up to January 27th, 1907, at the exhibition of the works of William Holman Hunt, the number of free admissions was 116,816. From March 25th up to April 27th, 1907, at the Frederic Shields exhibition, the number of free admissions was 36,228. From May 13th to July 6th, 1907, an exhibition of water-colour drawings was held, the number of free admissions being 47,788. On July 4th, 1906, the council approved of the transfer from the parks and cemeteries committee to the art gallery committee of the Queen's Park museum and certain portions of Heaton Hall for art gallery purposes. This was an important departure in the work of the committee, who feel that through branch art galleries much can be done to increase the scope and public usefulness of their operations, particularly to bring within easy reach of citizens in different localities good examples of art. At the Queen's Park branch an exhibition of oil paintings, early English and modern water-colour drawings, and of a col-

lection of "Childhood" pictures has been held in the gallery. The number of free admissions from the 17th of September, 1906, up to the 16th of September, 1907, was 143,239. At the Heaton Park branch, an exhibition of oil paintings and water-colour drawings by members and associates of the Manchester Academy of Fine Arts, a collection of early English furniture, and a collection of works illustrative of "Old Manchester and Salford," is being held in the gallery. The number of free admissions from May 20th to September 29th of this year was 102,896. A list is given of additions to the collections. These include "Napoleon at Bassano" (or a Lesson in Humanity), oil painting, by Thomas J. Barker, bequeathed by Mr. Robert Leake; "The Sheepfold," oil painting, by William Charles Estall, presented by Mr. John Arthur Bland; and "Portrait of the Artist's Mother," oil painting, by Henry Measham, presented by Mr. Richard Redfern.

EXTENSION OF NATIONAL GALLERY, LONDON.—About four years ago the trustees of the National Gallery acquired from the government the lease of a plot of land in the quadrangle of the adjoining St. George's barracks, the chief military recruiting depot in London, for a much needed extension of the gallery. The contract for the erection of the new wing has now been let, and the contractors have commenced to get in the foundations. It is expected that the extension will be completed in about a year. Two blocks of the barracks—considered a danger to the National Gallery in case of fire—were demolished at the time the trustees acquired the site in the square of the recruiting depot, and three blocks occupied by the staff of the recruiting department still remain, but they will be pulled down in the near future;

FRENCH ART AT MANCHESTER.—An exhibition of works by modern French painters, chiefly of the Barbizon and Impressionist groups, was opened at the Manchester city art gallery during the second week in December, and will remain open for about six weeks. Among the painters represented are Rousseau, Diaz, Dupré, Millet, Corot, Harpignies and Boudin; Moret, Manet, Pissarro, Carrier, D'Espagnat, Maufra, and Pointelin. Works by such English painters as Constable, Turner and Bonington are also included, to illustrate the influence of English landscape art on landscape painting in France. Most of the pictures are from the collections of M. Durand-Ruel and the late Mr. Staats Forbes.

BELFAST MUSEUM.—At the annual meeting of the Belfast natural history and philosophical society, the resignation was announced of Mr. Samuel Alexander Stewart, F.R.S., Edin., A.L.S. curator. Mr. Stewart has done excellent work in Irish botany and has been a generous contributor to the museum.

BRITISH MUSEUM.—The series of Babylonian inscriptions in the British museum has been enriched by a number of tablets of unusual interest. One of the most notable additions to the collection is a large inscribed baked clay cone, of about B.C. 2145, on which is an inscription in seven columns commemorating the rebuilding of the great wall which surrounded the city of Sippar, in Babylonia. There is also a long list of titles of the King of Babylon of that period, and his achievements are described at length. This cone is said to be the largest example of the class now known.

OBITUARY.—Mr. David Douglas, sub-librarian at the Albert Institute, Dundee, and who had been in charge of the institute since Mr. John Maclauchlan's death in October last, died with startling suddenness at the end of November. He had been to Broughty Ferry to call on Mrs. Maclauchlan and died on his way from there. Many members of the Museums Association gratefully remember Mr. Douglas' kindly courtesy and attention at the Dundee Conference, and will share our deep regret at his untimely end.

ABROAD.

HARVARD MUSEUM OF COMPARATIVE ZOOLOGY, CAMBRIDGE, MASS.—Miss Maria Whitney, of Cambridge, Mass., U.S.A., has given to Harvard University the sum of 5,000 dollars, the income thereof to be applied to the care and increase of the Whitney Library of the museum of comparative zoology.

FIELD MUSEUM OF NATURAL HISTORY, CHICAGO.—The late Marshall Field bequeathed to this museum the sum of eight million dollars. Since he had prior to his decease paid 430,000 dollars to the trustees of the museum, it was held by the executors that the latter sum should be deducted from the eight million. The Trustees, however, have obtained a decision from the Chicago Probate Court, giving them the whole of the eight million in addition to any money previously received.

SANTO DOMINGO, PRESERVATION OF ANTIQUITIES.—While the countries of Europe are rapidly being deprived of their artistic and archæological treasures and while the French Ministry is debating what legal measures can be adopted to prevent this loss in future, Santo Domingo has already taken the requisite steps. On September 17th, 1907, the president published a decree which, as we learn from *Science* contained the following provisions :—" After explaining that the archæological remains in the island should be preserved, that a museum should be established for the purpose, and that many objects have been taken from the island, the decree goes on to state that such objects are the exclusive property of the nation and therefore shall not be taken from the country or appropriated by private persons. Private collections already made will not be disturbed, but they must not be removed from the republic. Any person finding one of these objects shall deliver it to the superior authority of the province or district in which it is found, who shall have the object deposited in a suitable place, inform the government of the discovery and have the fact published in the newspapers. A register of these discoveries shall be kept by the governors of the various provinces. Any person violating the provisions of this decree shall be punished according to law."

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On the Preservation of Marine Animals with their Natural Colour.

By H. C. SORBY, LL.D., F.R.S.

SINCE it seemed to me that it would be such a great advantage to be able to exhibit in museums brightly coloured animals in all their natural beauty, and not more or less completely bleached, I devoted many years to experiments when living on my yacht, and could obtain fresh material. Not being able to do this now it may be useful to describe the general conclusions to which I have been led, and those cases in which I have been more or less successful. I may say that I have been able to preserve a number of our most highly coloured animals for years without any apparent change, and the only question is how far the methods would succeed under museum conditions, and what modifications would then be required.

My numerous experiments showed that the liquid in which the animals are kept must fulfil the following conditions. It must not be too dear, must be colourless, antiseptic, and not dissolve the pigment, or the oxygen of the atmosphere, and strong light must be excluded.

Considering now certain colourless antiseptic liquids, I may say that in the case of many highly coloured animals the pigment is so rapidly dissolved by alcohol that in a few days they are almost colourless. Though diluted formalin may not dissolve the pigment, it may soon cause it to fade, owing either to its own action or to that of dissolved oxygen. Paraffin oil, such as is used in lamps, seemed to promise well, but the colour of the animals was gradually lost. The only liquids which so far have been satisfactory are very

strong glycerine and syrup. Against the former I have met with great prejudice, which is easily explained by the presence of water. Some years ago what was sold was probably far from being anhydrous, and, if it was, possibly the animals were finally put up in their natural condition ; when the water they contained would be quite sufficient to so dilute the glycerine as to make it useless ; since it does not require much to make the animals decay and to dissolve the pigment. On the contrary, if all the water be quickly removed and the animal finally put up in almost anhydrous glycerine it may keep perfectly well with its natural colour for years, but perhaps gradually fade from the extreme top downwards, almost certainly because even strong glycerine dissolves a small quantity of the oxygen of the air. It must be borne in mind that when treated with glycerine some animals contract considerably, but usually only so as to look like smaller individuals. Also some become darker and alter in colour, especially crustaceans, different individuals varying much. Both these changes can to a large extent be counteracted by previous treatment with 4 per cent. formalin.

A large part of my experiments were made with *Solaster papposus*, because it was by far the most brilliantly coloured animal I could procure nearly everywhere. Seeing that the upper portion of those rays which were within a short distance of the air inclosed in the glass vessel gradually faded, whilst the rest were unchanged, I kept a specimen in very strong glycerine at the top of which was a thick layer of almond oil. After more than five years it is even more brilliantly coloured than when alive, and there is nothing to indicate that it would not keep much longer. I also find that portions of *Solaster* have kept well in wide mouthed stoppered bottles, with little air, probably because the external air has been well excluded. The question is however whether preparations with a layer of oil would be suitable in a museum ; since if carelessly handled, the oil might come in contact with the animal and dissolve out the colour.

The perfect sealing up of rectangular glasses containing glycerine is apparently difficult, since, in the case of several cements used, though some vessels remained tight for years others leaked badly. The only explanation I can suggest is that when glycerine is wiped off the top of the glass an invisible layer remains along which more penetrates.

Some animals mounted as I have described in glycerine after seven or more years look as lifelike as those seen in aquaria, quite different to those usually seen in museums which is surely worth the extra time and trouble to insure that all the natural water has been removed. These are amongst the most strikingly coloured of our marine animals. I especially name sundry sponges, *Tealia crassicornis*, *Actinoloba dianthus*, *Solaster papposus*, *Ophiocoma*, *Sabella*, *Botrylloides*, yellow *Botryllus*, several nudibranchs, *Septiolaria atlantica*, *Loligo media*, red and grey gurnards, and other fishes.

Quite a number, however, differ from living specimens in showing more colour, because they are made more transparent. This disadvantage is more than compensated by the internal structure being made visible and the general beauty increased. Of these I may specially mention *Ophiura*, *Cirratulus* and many other worms, which show well the leading blood vessels. *Ascidia aspersa* and *Ciona intestinalis* which make beautiful objects since the internal structure and colour are so well seen. Small plaice, soles and skates show well the general colour, and also much of the internal structure and leading blood vessels.

In confirmation of my conclusions I may say that I have some hundreds of marine animals, dried and then mounted in Canada balsam as lantern slides, and this has so well protected them from atmospheric oxygen that few, if any, have faded in 15 years. Possibly what little oxygen has been absorbed has combined with the balsam. As an almost universal rule these preparations have improved by keeping, having become more transparent.

The importance of the exclusion of oxygen is also proved by my experiments with solutions of vegetable colouring

matters, which have remained apparently unchanged for about 30 years when sealed up in glass tubes, almost absolutely free from air, even resisting for a considerable time the action of strong sunlight, though they soon faded when exposed to air.

As an example of animals that I have been able to preserve for five years with their natural colour almost unchanged, I may mention *Medusæ*, *Actiniæ*, various worms, some crustaceans and nudibranchs, *Sepia*, *Sepiola*, *Loligo*, various simple and compound ascidians, red gurnard, and other fishes.

Taking all the above named facts into consideration, it seems that well stoppered wide mouthed bottles, well filled and never opened, are fairly satisfactory. The chief difficulty is in the case of rectangular vessels; since the oxygen has such a short distance to diffuse through the cement used to fasten on the covers. It would I think not be difficult to design methods to overcome this objection, but it might be impossible to get them carried out. The preservation of the colours is manifestly a chemical question, and now that the cause of fading seems to be known, there is more chance of preventing it, though it may be difficult to do what is requisite. Of course from the beginning I thought that exposure to strong light would make many specimens fade, and I therefore kept my chief preparations in the dark, except when under examination. I had a special series made up and protected as well as possible from the air, and others exposed to it, both kept in the brightest available sunlight, and a comparison series kept nearly in the dark. The observed facts are too numerous to describe here, and the details are chiefly of chemical interest. In nearly all cases the animals in alcohol or 4 per cent. formalin became almost colourless long before those in glycerine showed any sign of fading; but I was surprised to find that when in glycerine and exposed to strong light some animals turned dark or altered much in colour. In some cases one constituent colouring matter faded and another in the same animal did not, thus as it were changing one natural coloured variety into another.

The following animals retained their colour in strong light almost in quite perfectly for over two years :—Red sponge, *Chrysaora isosceles*, *Tealia crassicornis*, *Actinoloba dianthus*, *Solaster papposus*, *Asterias rubens*, *Ophiura ciliaris*, *Ophiothrix fragilis*, Orange Botryllus, *Botrylloides leachii*. *Solaster* and *Asterias* had perhaps faded a little.

In these experiments my aim was to expose to as strong light as available. If such specimens were kept in a museum and exposed to as little light as practicable there seems no reason why the colour should not remain good much longer. Possibly some liquid could be found better than glycerine, but this could be learned only by experiments taking a long time.

Since according to old authorities what was thought to be a young Centaur was sent from Egypt to the emperor Augustus preserved in honey, I thought that possibly a concentrated solution of lump sugar might form a good liquid for mounting animals. In a number of cases it has answered very well, the natural colours being preserved, and any leakage soon made up by the crystallisation of sugar. The chief objection is that substances dissolved from the animals may cause the syrup to turn mouldy at the surface.

An Early Dundee Museum.

BY ALEX HUTCHESON, F.S.A. SCOT.

[Read at the Dundee Conference, 1907.]

IT may be no more than a truism that in order to preserve a just sense of proportion in relation to the present it is necessary constantly to keep in touch with the past ; but it seems more specially incumbent upon us in these days.

In the astonishing progress of modern times we are apt to overlook what we owe to the workers whom we have superseded, and are already in danger of forgetting.

Those already old-fashioned folks who were with us but yesterday wrestled with obstacles which, because of their wrestlings, no longer beset us. Their labours have made smooth for us the pathways of progress, and life is less strenuous for us that they battled with the untamed forces of nature, and the little other than barbarous conditions of municipal life of their day. They devoted their energies to infuse into that life the vitalising principles of a new order where the graces of art, literature, and science should combine to purify and sweeten its amenities.

In contemplating the improved sanitary conditions of our cities, in respect of paving, lighting, water supply, drainage, electric traction, our public parks, picture galleries, free libraries, and museums, and all the marvellous advances of science we are apt to regard all with the egoism of self gratulation, forgetting that all these improvements had their beginnings in the past and that our fathers strove with these problems in no faint-hearted spirit, but with the full assurance that one day those problems would be solved, and their labours crowned with success.

Much might be said on the various issues suggested by such considerations, but time and space forbid reference to more than one department of the long catalogue of what we owe to the past. In this spirit of remembrance therefore, and as a simple act of justice to townsmen whom some of us may be able to remember, and whom certainly we ought not to forget, I have been desired by the respected curator of the Dundee Free Library and Museum to place before you to-day some brief and necessarily imperfect notes of Dundee's first public museum.

In Dundee as elsewhere, it was the case that private effort preceded public action. The private museum of the enlightened citizen, the anatomical collections of the medical man, the repertory of the specialist in science took precedence by many centuries of the public collections. In this way, and either by enlightened donation, or by equally enlightened acquisition of private collections, most

of the great public museums of the world have had their beginning. Take one notable example, that of the British Museum, which I do not need to tell this assembly had its rise in the will of Sir Hans Sloane, the eminent physician and antiquary, who by it having made offer of his great collection of antiquities to the nation at the sum of £20,000, which being accepted, formed the nucleus of that world-famed institution.

At the beginning of the nineteenth century there was no public or semi-public museum in the county of Forfar. It is necessary here to discriminate. Until the adoption in Dundee of the Free Libraries Act and the opening of the present museum in the Albert Galleries, no museum in the town had been free to the public. A charge for admission, with, at the beginning, compliance with other conditions was made for the earlier museum. This will appear later on.

We know of at least one private museum or antiquarian collection in Dundee previous to the opening of the 19th century—that of Mr. Jas. Wright, who died in 1798, well known as a medallist and expert in coins, whose many donations to the museum of the Society of Antiquaries of Scotland in Edinburgh as well as his literary contributions attest his knowledge of medals, and the value of his collections. Mr. A. P. Stevenson mentions a much earlier private museum in Dundee, which was originated about 1709 by Dr. Patrick Blair, a medical man, who dissected an elephant which had died in the district and added the skeleton to what the Dr. called his "Hall of Rarities." Mr. Stevenson's paper was read on 11th April last to the Edinburgh Botanical Society and will appear in their transactions for the year.

Another private collection in the near neighbourhood, although not in Dundee, and of the details of which little is known, was fitted to cast a lustre on the district, that of Mr. George Constable of Wallace Craigie, a gentleman understood to be the original of Sir Walter Scott's antiquary.

It was however to a small body of individuals that Dundonians owe the first effort to establish a public museum in the town. So long ago as the year 1810, the idea originated with a Mr. Douglas Gardiner who was much respected for his attainment in botanical and general science, and as a consequence a small number of individuals associated themselves for mutual instruction in science. A library was formed, philosophical apparatus collected and a museum was begun. Two or three roomy apartments were rented near East-end of Overgate, in which the property of the Society was placed, and the Society assumed the name of "The Rational Institution." Its objects and management are set forth in its prospectus which may be quoted as follows :—

"The Rational Institution is a scientific and literary society, and consists of ordinary, honorary and corresponding members. The object of this institution is the diffusion of knowledge ; for which purpose a library, museum, and Philosophical apparatus have been procured, and it may be averred, that the various objects of which these departments are composed are excellent of their kind, and in order that the library, &c., may be rendered as extensive as possible such ordinary member contributes twelve shillings and eightpence per annum. Weekly meetings are held, when lectures or essays are delivered, and questions of a scientific or literary nature are discussed ; but no dispute of a theological or political nature, which may have the smallest tendency to call forth party spirit or sow the seeds of discord is permitted." The first librarian and secretary was the celebrated William Lyon Mackenzie, afterwards so well known as leader of the Canadian Insurrection of 1837, and member of the Legislature of Canada. I have not been able to procure any information as to the extent or nature of this museum, and the Society itself was dissolved after being in existence for about ten years.

It is, however probable that the example set by the foregoing Society may have led to the shape taken by the public movement now to be noticed. Shortly after the

death of the celebrated engineer James Watt which took place on 25th August, 1819, a movement was set on foot in London to erect a monument to perpetuate his memory and subscriptions were solicited in the Metropolis, and Edinburgh, and several other cities were asked to join. The provost of Dundee (Patrick Anderson of Laws), having been named one of the Edinburgh committee, was requested to commence a subscription in Dundee, and in response thereto addressed a circular letter dated 11th August 1824, to several of the principal inhabitants requesting them to assemble in the Town Hall on the following Friday. Only seven gentlemen attended the meeting, viz : Provost Anderson, Messrs. Christopher Kerr, William Hackney, James Brown, William Brown, Alex. Clarke, and John Thain. After conversation the meeting agreed it would be more proper to commence a subscription for the purpose of founding some useful institution in Dundee, in honour of Mr. Watt, than to raise money to be expended elsewhere. The provost proposed that the meeting should be adjourned, and another meeting called for 19th August, which was agreed to. About twenty gentlemen attended the adjourned meeting which was held in the Town Hall. Provost Anderson was called to the chair, and Mr. Christopher Kerr acted as clerk. The provost having stated the object of the meeting Mr. James Brown, flax-spinner, moved the following resolutions, which were unanimously agreed to :—

- 1 That the late James Watt by the great improvement which he made in the steam-engine, conferred a benefit of incalculable value on his Country.
- 2 That as a mark of gratitude for the Eminent services of Mr. Watt, an institution be founded in Dundee, to be named "The Watt Institution of Dundee," for the instruction of young tradesmen in the useful branches of the arts and sciences.
- 3 That a subscription be commenced for the purpose of defraying the expenses of establishing the Watt Institution.

Other resolutions had to do with the management.

After having procured subscriptions to the amount of £526 3s. 6d. a general meeting of the subscribers was called for 10th November, 1824, at which a constitution and regulations were adopted and directors appointed for the session, which was declared to extend to the first Monday of May in each year.

The first report of the Directors was read at a general meeting of the members on 2nd May, 1825, up to which time the subscription amounted to £799 4s. 6d. On the 19th January of that year the Institute was opened in Willison Church, Barrack Street, then known as the Meetinghouse of the Associate Congregation, the free use of which had been conceded by the minister and managers. The Directors having secured the services of Mr. John G. McVicar and Mr. Andrew Roy as lecturers, these gentlemen commenced the session with an attendance of four hundred and sixty members. At the close of the first session the whole receipts were found to be £872 13s. 6d.; while the total expenditure for books, apparatus, and other requisites amounted to £271 6s. 11d., leaving a balance of £601 6s. 7d.

No mention had hitherto been made of a museum, but it was probably in the minds of the directors, for in the third annual report, dated 8th May, 1827, it is stated that "deeply impressed with the importance of the knowledge of natural history, the directors felt anxious to begin the formation of a cabinet for its illustration. They therefore purchased a collection of simple minerals containing upwards of 600 characteristic specimens arranged according to Phillips. They also purchased 120 specimens of the rocks of the Hartz Mountains geologically arranged. To these it is expected there will soon be added a set of Scottish rocks—perhaps also of English." It is added "No specimens have as yet been procured for either of the other branches of natural history." Nothing more definite than the foregoing as to a museum appears in the reports until May, 1834, when the directors broach a proposal to erect a building containing a suitable lecture hall and library room with a

spacious room for a museum, which latter, it was stated, would probably consist of the following departments :—

- 1 Zoology, including comparative anatomy.
- 2 Botany.
- 3 Mineralogy and geology.
- 4 Models of machinery.
- 5 Curious manufactures, foreign or native.
- 6 Antiquities.

It is added " that the want of funds for the purchase of things suitable to the museum, will force the Institution to trust chiefly to donations for the acquisition of them ; but while this circumstance will probably prevent the formation of an extensive and uninterrupted series of illustrations in any of the departments, it will not prevent the accumulation of a considerable number of interesting and valuable objects in all of them—the last perhaps excepted. As there are few persons who do not possess some curious productions, the number of such things in the town must be very great, and although when scattered they are of very little use, they would if collected together, arranged and ticketed with descriptions, be instructive and well worthy of attention. That very many of these would be presented to the museum there can be very little doubt, and indeed numerous promises of donations have already been received. From the Dundee shipping, now extending to every part of the globe, foreign curiosities may be expected, and from gentlemen in the district, who have a taste for natural history, complete sets of the animals, plants, and minerals to be found in the country, or on its coasts may not unreasonably be hoped for. Besides these local sources of acquisition, the directors have reason to believe, that were a suitable place prepared, where such things could be safely preserved, extensive donations might be obtained from learned societies, from whose museums duplicates are frequently thrown away.

On the whole, while the circumstance of there being no public museum in Dundee, nor even in the county calls

loudly for the formation of one without delay, it justifies the opinion that one might speedily be collected at little expense.

Should this important object be gained, it is not intended that access to the museum should be restricted to the members of the Watt Institution ; on the contrary, it is proposed that it should be open to the public on the most liberal plan compatible with its preservation."

The foregoing extract is so interesting as shewing the spirit on which the enterprise was entered upon by the directors that I hope I shall be pardoned for giving it *in extenso*.

Meantime considerable difficulty was experienced in getting the proposed building scheme set agoing, and it was not till 1845 that the new building was ready for the purposes of the Institution. The museum had however met with such a measure of success that the directors were able on the 1st January, 1838, "to invite the public to an inspection of natural and artificial curiosities in one of the halls of the public seminaries (now known as the High School), which had been kindly granted for their use," and there the collection remained until June, 1845, when it was removed to the new building which had been erected in Constitution Road. By this time, or within a year or two afterwards, although the Institution had never before had such a large membership, it had got into financial difficulties, mainly through the greatly increased cost of the new building scheme beyond what was expected, and in 1849 the situation was so strained that steps were taken to have the affairs of the Institution wound up. It was not however until 1852 that that was accomplished after several vain attempts had been made to resuscitate the Institution ; but its day was past—not a spark of public enthusiasm could be evoked to prevent the catastrophe. A strenuous effort was made to rescue at least the library and museum, and a sum of £350 was raised whereby this was accomplished, and the books and curiosities were transferred from the building in Constitution Road, to Lindsay Street Hall, where they remained until taken over in 1867 by the Albert Institute directors.

Apart from the museum, the Watt Institution does not come under survey ; but it is well to remember as adding force to my introductory remarks as to what the present owes to the past ; that one of the early pioneers of the Institution was our talented townsman Mr. James Bowman Lindsay, whose bust adorns our art galleries. He was appointed lecturer and teacher to the science classes which met under the auspices of the Watt Institution, and it was recorded in the local newspapers of the day in July, 1829, " that he received the present of a new hat from his day scholars for the attention which he had bestowed in facilitating their studies."

Let those who marvel at the wonders of the Electric light and of wireless telegraphy recollect that Mr. Lindsay exhibited the former at a lecture he gave in Dundee on 15th January, 1836, and that he took out a patent in June, 1854, for his invention of telegraphy without wires. This scholarly man began the compilation of a dictionary in sixty languages, but afterwards finding the work too great for one lifetime restricted it ultimately to fifty languages. Alas ! even that proved too long a task for him, and at his death it was left unfinished. The MS. of that seemingly super-human work can be seen in Dundee Museum.

Other able and eminent local men who gave their assistance to the Institution by lectures and in other ways were, Dr. Thomas Dick, a native of Dundee, author of the *Christian Philosopher* and of many other works on *Astronomy* and *Philosophy* ; Mr. William Gardiner also a native of the city, one of the earliest lecturers to the Institution, eminent as a botanist and entomologist, an able poet, author of the "*Flora of Forfarshire*," and other botanical works, and of many communications to scientific magazines and who started and conducted in Dundee the first naturalist society with a MS. magazine of which he was editor ; Mr. J. G. McVicar son of a Dundee Manse, and afterwards parish minister of Moffat, one of the first lecturers who conducted classes in chemistry in the Institution and gave to it in successive years many courses of lectures on scientific subjects including astronomy.

Besides these were many other local gentlemen both lay and cleric, who lectured and in other ways freely gave their assistance to the Institution among whom it would be invidious to make a selection. Of those who assisted at the inception of the Watt Institution and its museum all have long ago joined the majority; but of many of them their descendants and relatives occupy prominent places in the city to-day. Of those who lectured and otherwise assisted the Institution down to the close of its career, so far as known to me only one survives in the person of a gentleman well known to and highly respected by at least two generations of Dundonians, Mr. George Lowdon, late optician, who now resides at Monifieth, and who about a year ago gave us in the columns of the "Dundee Advertiser," an all too brief sketch of his most interesting reminiscences of the progress of science in his day and of the eminent scientists, whom he had met,—himself a pioneer in science, who fitted up the first electric telegraph in the district, and in 1878 introduced and exhibited in our streets the first public electric lighting in Dundee.

DISCUSSION.

Mr. MAY: My duty lies rather in the providing of specimens than in the casing of them, and you know the first thing is to catch your hare. I am very glad that the local committee managed to provide us with such an appropriate paper as we have just listened to, giving such an interesting history of local museums. I feel very grateful and very interested, because I myself was a life member of the Edinburgh Watt Institution. I beg leave to express my gratitude.

Mr. PLATNAUER: I feel this paper will do a lot of good, for there is a very great tendency to forget the past. The progressive rate of the present makes us forget those who have gone before. These records of the past are exceedingly useful. There have been others at work before ourselves and we ought not to forget their labours. Mr. Hutcheson has treated in a very interesting way a subject that I hope will never become extinct in our meetings.

Mr. MACLAUCHLAN : A large number of our specimens came from this Watt Institution. I meet men daily who tell me that the first thing that attracted their attention and gave them culture, and developed feelings of inquiry, was this Watt Institution, which Mr. Hutcheson so very beautifully and with so much literary grace described. I hope we shall not forget the past, or neglect what the past has given us. We are very much indebted to Mr. Hutcheson for his extremely interesting paper.

**A Commentary to "Malmö Museum," by
F. A. Bather, in the "Museums Journal,"
Vol. 7, No. 3.**

OPEN LETTER TO DR. F. A. BATHER,

By O. GYLLING.

Dear Sir,

Your kind opinion of my technical skill as a taxidermistic artist obliges me very much, though I am sorry that my arrangements have not succeeded in gaining your approbation. I dare say that if I had got the pleasure myself to be your guide through our institution, your impressions would have been somewhat otherwise. When enumerating the "horrors" among my works, it seems suitable to pay full attention also to their natural counterbalance ; the numerous preparations of animal situations of a pure idyllic character, such as : goldcrest building its nest, owls at home (in a hollow trunk), sparrowhawks in nest feeding young, eider duck on eggs, plovers leading their young, a bit of shore, great diver resting on shore, the young on its back, &c. ; these more peaceful arrangements are in a considerable majority. The leading principle in our collection is to demonstrate more important and interesting animal types in characteristical situations and in typical surroundings. As generosity and unselfishness are almost still rarer among animals than among men, it is often inevitable, especially when demonstrating carnivora, that the motives of the compositions become such as "to

eat or to be eaten "; stalking on the prey, pursuing or even—eating it ; flying, hiding, fighting, contending for the other sex. In a museum, whose purpose is the instruction of the average public, it seems to me that the dermo-plastic artist may not only be allowed but ought to show the nature-interiors as they are, as living, as real as possible. The pictures of animal life shown in Malmö museum are all such as I have often observed myself, partly in wild nature, partly on "wild" animals tamed, but kept in full liberty.

Horror is a vague idea as much as anything. To my taste there are no horrors in nature ; horror in this "world of woe" begins and ends with man. Thus, there is a case where you are quite right in your criticism ; the fox howling in a trap. But this animal is meant to be part of a collection illustrating the trapping methods still much used in our northern provinces, the results of which are, as a valuable article of commerce, of great economic importance to the poor population, especially the settlers and aboriginal Lapplanders, and on that account well worth demonstrating. Neither the samples of furs nor the various constructions of traps are yet complete enough, and the fox is thus seen out of its logical coherence. It is to be regretted that your guide did not inform you on this matter.

The great Ruskin's name has made its way in the world, but that of Charles Darwin has perhaps gone still further. My modest intention has been to illustrate some of the laws of nature pointed out by the latter, by Bates and Wallace, as, struggling for life, protective colours, mimicry, &c. Of course my work is full of defects, but I never wanted to revel in horrors, neither was I accused of doing so. I regret your expressions as much as I regard your opinion and that of the readers of this publication.

Yours very truly,

OLAF GYLLING.

I am glad that my short notice of Malmö museum has brought this interesting communication from Mr. Gylling,

but I regret that he seems to have taken my comments on some of his admirable work a little too seriously. I certainly never accused him of revelling in horrors, but as I walked round the zoological gallery of the museum, without a guide, I could not help being more impressed by the groups to which I specially referred than by the others to which Mr. Gylling would have had me pay greater attention. Possibly this argues too great a "taste for horrors" in myself, but I am inclined to think that very many of the ordinary public would share my impression. Most readers of this Journal know that I would not go so far as Ruskin in his views on appropriate subjects for exhibition; but the general question seems to be one that admits of discussion, and it would be interesting to have the views of some curators more competent in these matters than I claim to be. Meanwhile I would merely reiterate my high appreciation of Mr. Gylling's work and my regret that I should have seemed for a moment to be treating it unfairly.

F. A. BATHER.

27th December, 1907.

Animal Biographies.

FINAL NATURAL HISTORY ESSAYS, by Graham Renshaw, M.B., F.Z.S.
Published by Sherratt and Hughes.

The present volume is the last of a series of three, written by Dr. Renshaw, containing sixty essays dealing with selected examples of the mammalia, considered from the point of view of the zoologist and historian. The series dealt with in this volume, ranges from the Drill Baboon down to the Duck-billed Platypus; members of the Ungulate order securing however chief recognition. Dr. Renshaw deals with his subject by first giving a careful and fully detailed description of the external features of a species, followed by references to the habits and habitat, and the circumstances under which the animals first became known or made their appearance in European menageries. The

essay upon the European bison is one of the most useful, and the author has done well to give a census of examples of the species preserved in museum and private collections to-day. Under the heading of African buffalo, a local variety so closely allied to the Congo form as to be indistinguishable from it in a photograph, is shown in place of the well-known typical form of *Bos caffer*. Many of the rarer examples of the *Antelopidae* are described, and the author like many others urges the utilisation of such forms as the nilgai as park animals. The value of Dr. Renshaw's book to a curator consists in its wealth of detailed description, and in furnishing an admirable summary of what is known respecting each form dealt with. It is useful knowledge also to know where the earliest specimens of a species brought to Europe can yet be found, and what success has attended the efforts to breed and acclimatise many of what are now comparatively rare mammals. To the curator desirous of drawing up descriptive labels, the book will prove most valuable.

Museum Publications.

British Museum.

GUIDE TO THE SPECIMENS OF THE HORSE FAMILY (*Equidae*) Exhibited in the Department of Zoology, British Museum (Natural History), Cromwell Road, London, S.W. London, 1907. 1s.

Among the many improvements due to the last director of the natural history departments of the British Museum was the installation of a series illustrating the various breeds of domestic animals. Among these, few are of more general interest than the specimens of the horse, of which many famous individuals are represented, partly by skeletons, partly by heads, skulls, limb bones, models, and pictures. The horse is not merely of interest to the breeder and the sportsman, but, with its relatives both living and extinct, has long formed one of the most important proofs of the evolution of animals. The present guide, drawn up by a

high authority on the subject, Mr. R. Lydekker, gives in convenient and concise form the main points of the story as illustrated in the galleries of the Natural History Museum. It appears at a very fitting moment, when public interest has been aroused by the Swiney lectures of Professor Cossar Ewart and when attention is naturally being directed to the valuable work accomplished in this museum under the direction of Sir Ray Lankester. Some grumblers and critics have, we believe, objected to the exhibition of domestic races in a museum essentially devoted to natural products. On the broader question of policy, we consider that anything is to be commended that will provoke an interest in those members of the public whose connection with natural history is on the sporting rather than the scientific side, or that will show the bearing that a scientific knowledge may have upon practical breeding. But from the purely scientific aspect the collection and exhibition of these skeletons and other specimens is often of considerable value. Thus we learn among other things from this guide that the foot-bones of Shire horses, as represented in individual specimens formerly owned by Mr. Peter Stubs and Lord Wantage, comprise distinct representatives of the side toe-bones of the extinct three-toed hipparion. More specimens are required to show whether this is merely a reversion due to the large size and figure of the Shire horse or whether it indicates a distinct ancestry for that breed. In either case the purely scientific aspect of the collection is of considerable interest.

A somewhat curious point is suggested by Mr. Lydekker's remark that "since . . . the Latin name *Equus caballus* was given by the Swedish naturalist Linnaeus, it seems necessary to regard the domesticated horses of Scandinavia as the typical representatives of the species." The features of this domesticated Scandinavian breed are therefore given on p. 13. The word 'typical' is presumably used in the technical sense of systematic zoology and implies that the type-specimen, if we can suppose that such a relatively modern idea could have entered the mind

of Linnaeus, would have been the domestic Swedish horse. Mr. Lydekker does not, however, raise the question whether the domestic Scandinavian horses do not include more than one race. He does not, for instance, mention the distinct small horses which, till a recent period, were found on Oeland and have left their mark on the slightly larger modern breed of that island. Still the logical working out of the principle adopted by him would lead one to regard the horses of the Upsala plain as the most nearly approaching the original type-specimen; and it may be added parenthetically that the type-specimen of *Homo sapiens* must have been Carl Linnaeus himself, as is further indicated by the sentence "*Nosce teipsum*," which served Linnaeus for a diagnosis.

But, to return to the guide, we should note that it contains an excellent series of half-tone and outline figures illustrating the various races, points of importance in the skeletal and dental anatomy, and the outward appearances of the legs and feet. Quite apart from the admirable collection to which it serves as a guide, this little book may be recommended to all lovers of our noblest quadruped.

South African Museum.

ANNALS OF THE SOUTH AFRICAN MUSEUM, Vol. V., Part V., No. 6.
Notes on Some Bushman Crania and Bones, from the South African Museum, Cape Town. By Frank C. Shrubbsall. Issued on 17th October, 1907. 44 pages. Price 1s. 6d.

These notes are based primarily on a collection of skulls and skeletons in the South African Museum; but they also include measurements of Sandlooper crania and various skeletons and bones in the Anatomical Museum of Cambridge University. Owing to the number of measurements and their careful manipulation by modern biometric methods, the paper is of much value in itself, and will serve as a useful example to those of less experience, who may be called upon to deal with similar remains in their museums. Such workers will further be greatly assisted by the descriptions and definitions of the various measurements to be taken, as well as by a note on the methods of interpretation

of the measurements. These pages, together with the three lettered outline figures will be of much service to many whose interest in the actual specimens described may be of the smallest. Just to mention one small point, the author recommends taking the cranial capacity with millet-seed rather than shot. "When shot are employed as the cubing medium it is usual to apply gentle pressure with a rammer in the course of filling both the skull and the measure. This is disadvantageous when a delicate skull is being measured on account of the risk of starting some of the sutures, which is avoided by the employment of the lighter material, millet seed."

The only fault we have to find with this publication is that the address of the author is not given. We believe that Dr. Shrubsall is at the Brompton Hospital, London, S.W.

Chicago.

The annual report of the Field Museum for 1906 is a publication over a hundred pages, illustrated by seventeen plates. It opens with a reference to the death of Mr. Marshall Field, the founder of the Columbian museum, and a short sketch of his career. This is followed by an account of the year's work, which is extraordinary. Twenty-three lectures have been delivered, and the directors reports that the demand for admission has nearly always exceeded the capacity of the hall. Twelve publications have been issued, and the exchange list has risen to 1,207. The amount of cataloguing, entering and labelling done is prodigious. Some notion may be formed by the number of entries made during the year. In the department of anthropology they amount to 7,576; botany, 15,490; geology, 9,367; zoology, 5,738. The number of photographic preparations—negatives, prints, lantern slides and enlargements—made during the year is 8,824. The attendance has been 254,516. Over thirty classes have visited the museum, mostly three or four times. The Art Institute publishes a report for the year ending June 1st, 1907, illustrated by four plates and two plans. This period has been marked by the construction

of a second floor corridor and a new print room. The acquisitions are numerous; the most important is an "Assumption," by El Greco (Domenikos Theotokopolos), painted in 1577. Three large exhibitions and nineteen smaller ones have been held. Ninety-five lectures, six musicales and fifty school lectures have been given during the period, and twenty-two catalogues have been issued. The total attendance during the year has been 522,094.

Bootle.

The lecture programmes for 1907-8 are as full and as attractive as ever. Eighteen lectures, on a wide range of subjects, are to be given at the central public library, and the programme gives courses of reading for each lecture. There will also be eighteen lectures given at the Assembly Hall, Marsh Lane, all—with the exception of one on a literary subject—illustrated by Lantern pictures or musical excerpts. Six lectures (illustrated) will be given in the museum, Oriel Road. At last year's course there was an average attendance of eighty.

Cape Town.

The Report on the South African Museum for 1906 is most satisfactory as regards the growth of the collections, and the work of the staff; but progress is hampered by some difficulties, among which the chief is want of space. This is acutely felt in the geological department, in which the accumulation of material by the geological survey is considerable. In the anthropological department, the exhibition of a "Strand Looper" skeleton and the model of a Bushman will exhaust the available exhibition space. Some important discoveries of reptilian remains have been made, particularly of Pareiasauria. The greater part of a *Propappus*, which belongs to the group in question has been obtained. Plants come in faster than they can be dealt with. About 1,300 specimens were received; only 300 could up to the present be worked up: of these, about 40 were new species. There seems to be an imperative need for

a museum illustrating the economic botany of the country, and it is to be hoped that one will shortly be established.

Grahamstown.

From the report of the Albany Museum for 1906, it appears that both the growth of the collections and the use made of them educationally, are most satisfactory. The number of visitors was 20,718. A new enemy to the collections has had to be encountered, and one that would hardly have been expected in South Africa, viz., *damp*. It has, however, been successfully combatted. Part VI, of the "Records," completing the first volume, has been published. A successful method of preserving tortoises has been published in the "Museums Journal" (vol. vi., p. 100). A specimen exemplifying the method has been presented to the British museum. A large number of plants have been determined for teachers and others interested in botany, and much work has been done in identifying rocks and minerals for enquirers. The director has acquired much valuable material from the cretaceous beds of Addo, in consequence of a visit to that place, and through the courtesy of the De Beers Company he has been able to collect a number of rock specimens from the Kimberley mines—and with very good results.

Port Elizabeth.

During 1906, the museum was closed for some months for cleaning and re-organization, and the results have justified the committee in its action. During this period of renovation it was found that much damage had been done to the collections by insects. The museum staff has worked zealously and unceasingly, and the committee has generously approved and supported the efforts made. But the need for a new and more suitable building is imperative. Unfortunately public interest has greatly diminished, and the support of the townspeople is a sum of barely £50. It is to be hoped that some effort will be made to furnish the town with a fitting museum.

Newcastle.

In the report of the Natural History Society of Northumberland, Durham and Newcastle-on-Tyne, the council has regretfully to record a steady decline in the number of members during the last few years. It is sincerely to be hoped that the tide may very shortly turn. Another occasion for deep regret is the death of Mr. J. E. Robson, of Hartlepool, which occurred while the last part of his Catalogue of Lepidoptera was still in the press. Fortunately Mr. Eustace Banks has undertaken to revise the proofs. The council, finding that the material for publication was in excess of the Society's ability to publish, appealed for funds. The response was a sum of £228 12s. od. A second appeal only produced £17 16s. od. The amount thus obtained has tided over the present difficulty; but to keep up the publication of the transactions, additional help must be forthcoming. The appointment of Mr. Herbert Fletcher (of the Birmingham University) as assistant, is a circumstance on which the council is to be congratulated. Among the donations are two bequests of unusual value and interest—a collection of birds formed by the late Thomas Thompson of Winlaton, and the herbarium of John Storey. Seven successful "Museum Talks" have been given, six evening meetings held, and two afternoon lectures have been given to children.

Blackburn.

The brief report of the committee for the year ending July 31st, 1907, contains several interesting items. The experiment of Sunday opening of the reference library, museum and art gallery was tried for six months, but the attendance was so meagre and unsatisfactory that the opening was discontinued. The collections have received numerous additions, notably a considerable number of smaller British mammals. A loan exhibition was held in the Spring of unusual merit, Mr. E. R. Dibdin, of the Walker art gallery, superintended its arrangement and wrote the notes for the descriptive catalogue. This exhibition re-

sulted in a financial loss, but the committee held that its success in other respects justified the expenditure incurred. The permanent collection has been re-hung and re-arranged.

Manchester.

The Manchester Museum report unfortunately records the death of Mr. Mark Stirrup and the retirement of Mr. J. Cosmo Melvill. Fortunately, Mr. Melvill has been prevailed upon to keep his place on the Council. The museum suffers a further loss in the resignation of Mr. W. J. Hall. It is pleasing to read that the appeal for cases made in the previous report has produced—in addition to the response therein recorded—donations of £80 each from Mrs. D. J. Leech, Mr. F. Godlee and Mr. J. R. Hoyle. Mr. J. W. Bews (of Edinburgh) has been appointed lecturer in economic botany, and will in future help in the identification of plants and plant diseases that formed so important a part of the work of the botanical department. Professor Weiss has shewn a large number of Staffordshire working men round the museum collections. A great deal of work has been done on the collection of timber specimens. Mr. Hardy has laboured assiduously at the insects, and has made some interesting discoveries. Among these are two insects hitherto unknown in this country—(1) a beetle, *Tarphinus lauri*, found in the spathe of a banana, at Meols; and (2) an ichneumon fly, *Spilomicrus nigripes*, bred from the pupa of a beetle, *Quedius cinctus*. A grant of £40 16s. 3d. has been obtained from the Board of Education, and has proved very useful. A large number of labels has been printed by Miss Crompton, and has been supplemented by some produced by an Elliot Fisher typewriter.

General Notes.

AT HOME.

BRITISH MUSEUM.—As we have already announced would be the case, Sir E. Ray Lankester relinquished the directorship of the natural history departments of the

British Museum on 31st December last. The trustees have not yet appointed any fresh director of these departments, and it appears to be very uncertain whether they have any intention of doing so. The keepership of the zoological department, which was also held by Sir Ray Lankester, likewise remains unfilled.

MANCHESTER MUSEUM.—The annual meeting of the subscribers and friends of the Manchester museum took place at the university, on December 11th, when a large company assembled in the Whitworth Hall in response to the committee's invitation. After tea a meeting was held, presided over by Alderman Plummer, chairman of the museum committee, and also chairman of the municipal public libraries, when some account was given of the year's proceedings, and appeal made for further assistance in the way of subscriptions. Alderman Plummer in the course of his speech read an amusing account of the manner in which the visitors to Chetham hospital used, in former days, to be conducted by one of the boys of that ancient foundation round the museum of curiosities, which then hung upon its walls, and is now understood to be housed at the Salford museum, Peel Park. Professor Hickson described, with the aid of a large series of models recently acquired, the stages in the evolution of the horse. Another recent addition of importance was a series of the birds of the Manchester district, the gift of Mr. J. Kidson Taylor. Dr. Hoyle gave a brief account of the newly added Egyptian antiquities, which include a remarkable series of the "soul-houses," found by Dr. Flinders Petrie's party, and a most impressive exhibit consisting of the whole contents of one interment, including two mummies, with inner and outer coffins complete, a square chest containing the four canopic jars with their contents intact, and two models of the funeral barge, as well as life-like statuettes of the deceased and their servants. Manchester museum is much to be congratulated upon the possession of an exhibit which, although not quite typical, is yet far more illuminative than any number of unconnected specimens. The success of these gatherings suggests that the custom of holding an annual meeting for the inspection of recent additions is one which might well be imitated in other museums, even where there is not the nominal excuse of a small body of subscribers.

WHITECHATEL ART GALLERY, LONDON.—The income of this gallery is short by about £250 a year. If 500 among the

friends of the place who have hoped and believed in its power to feed the minds and enlarge the imaginations of those people whose outlook is often limited by mean surroundings would subscribe 10s. yearly, the deficit would be met. There have been twenty-three exhibitions in the last six years, visited by over two million persons, but unless the income is provided the trustees cannot make the fullest use of the gallery.

MODERN MEDALS AT THE WARRINGTON MUSEUM.—An admirable modern development of an old art is illustrated in a small exhibition of bronze plaquettes and medals by modern French and Belgian artists which is now open at the Warrington Municipal Museum, the collection being lent by Mr. Charles Holme. One is struck by the fact that few of these medals are done with any commemorative purpose; the excuse for their existence is rather the attraction of a beautiful material and the pleasure of modelling in delicate relief a small picture within a circle or oblong, with foreground and distance separated only by the minutest fraction of an inch. The treatment is thus frankly pictorial—sometimes, in fact, almost impressionistic. It is characteristic of this new view of the medal that subjects are taken from everyday life—groups of workmen or little domestic scenes. One of the best of these is the clearly modelled bronze of a woman and child, by Alexandre Charpentier, called "*La Maternité*," which is very charming in sentiment and composition. "*La Peinture*," another panel by Charpentier, less definite in outline than the first, is interesting on account of the way its planes melt into the ground surface. A feeling for the grotesque is manifested in Cazin's "*L'Accalmie*," while the work of Levillain and Croce with "*The Paris Mint*," and "*La Source*," by Dupuis, show more of classical grace. "*La Toilette*," by Oscar Roty, has a refined boldness of modelling similar to that of Charpentier's mother and child, with a more sensuous beauty than the latter. Portraiture, which offers so good a field for the medallist, is not very well represented, but Wienecke's head of the famous Dutch artist Josef Israels is an excellent study of character.

GLASGOW NATURAL HISTORY.—At the monthly meeting of the Glasgow Natural History Society Mr. Peter Macnair, F.R.S.E., F.G.S., Kelvingrove museum, gave an address on "*The Present Position of the Local Collections in Kelvingrove Museum*," with special reference to natural history. He stated that arrangements were being carried

out to make this museum thoroughly equipped in this department, and he indicated the plans which were in view to this end. This development, he believed, would be symmetrical as between an educational and a scientific collection. He stated that large collections of important material were in their possession awaiting arrangement and correct naming, many being of primary importance, and he appealed to members of the society to give a hand in the work of making such scientific stores available for permanent housing in the museum cases. A discussion followed, the general feeling being that with a proper understanding as to careful housing of valuable collections the naturalists of Glasgow would be ready to assist in making the Glasgow collection worthy of the reputation of the city.

NEWSPAPER NATURAL HISTORY.—Prof. Ray Lankester has written the following caustic remarks on this subject in the "London Daily Telegraph": The tendency of London newspapers to bedeck themselves every now and again with rank absurdities copied from American rubbish-sheets is a disease. On no subject outside the field of natural history and medicine would any editor dream of printing the stuff which does duty as "news" in regard to these departments—stuff which has not even the semblance of being carefully concocted, but yet is found "good enough" to cheat the managers of some of the great journals of London. Another antediluvian monster, much larger than the mammoth, was reported in a London evening paper at the end of November. The article devoted to it is a mass of absurdity, a burlesque of a genuine note on the subject. It appears that the most ordinary thing has happened at Los Angeles, California, namely, that some workmen, in driving a tunnel, have unearthed some fossil bones. We are not surprised to learn (though it is announced as a marvel) that the bones are those of a mastodon (of which you may see a whole skeleton in Cromwell road), and those of the American elephant called *Elephas Columbi*. This very common-place occurrence was certainly not worth recording in a London daily paper. So it is elaborately dressed up with details intended to "fetch" the innocent reader. The writer says *Elephas Columbi* is as much larger than the Siberian mammoth as that is larger than the horse of to-day. The truth is that *Elephas Columbi* and the mammoth are as nearly as possible of the same size. The writer goes on to tell of a "fossil horse," found at the same place, "a wonderful two-toed animal marked by his

cloven hoof." That is cool impudence ; it is precisely " the cloven hoof " which none of the horse tribe possess, but all the deer, cattle, and sheep do. Little does it matter to your purveyor of American monsters or to his publisher which way it is so long as he can assume an air of learning. He next tells us that elephants and mastodons were never found together before, but supposed to have shunned each other's company. This is an invention ; their remains are found side by side all over Europe. Then suddenly the surprising statement is made, like a bolt from the blue, " England ceases to be the Mother Country and Germany the Fatherland to us," and the pre-eminence of America in providing the biggest thing on earth is declared to have been already manifest " when the world rose out of chaos." It is satisfactory to be told that England is not the Mother Country of this silliness ; but whether the world which solemnly prints and reads it can be said to have yet " risen out of chaos " must be regarded as doubtful.

PORTRAIT PRESENTATION.—The presentation to the university of Oxford of the portrait by Sir W. B. Richmond, R.A., of Dr. Arthur J. Evans, keeper of the Ashmolean Museum, has been made by the principal of Brasenose, who referred to the Cretan discoveries of Dr. Evans as epoch-making. Among those present at the ceremony, which took place in the museum, were the vice-chancellor, Dr. T. H. Warren, by whom the gift was acknowledged. Lady Wantage, Mrs. Warren, Sir John and Lady Rhys, the warden of New college, Sir W. B. Richmond, Sir John Evans (father of Dr. Evans) and Lady Evans, Professor and Mrs. Tylor, Dr. George Macmillan, Canon Sanday, Mr. A. J. Butler, Professor and Mrs. Gardner, Professor Myres (Liverpool), Professor Miers (Oxford), Mr. Arthur Sidgwick, Mr. Horace Hart, Mr. C. H. Read (British Museum), Professor Haverfield, and Dr. Evans himself, who expressed the hope that the achievements of the past might be the stepping stone to still greater development, and that the whole of the fine art department might be placed on a new and permanent basis in which Renaissance objects of all kinds should be grouped together with the pictures in a thoroughly scientific manner.

LEIGHTON HOUSE ART LECTURES.—A large and distinguished gathering of art lovers assembled at Leighton House to hear a lecture from Count Plunkett on " Botticelli in his Age." The chair was taken by Sir William Richmond, R.A., and the company included many

other well-known artists and critics. Count Plunkett in the course of his remarks related the connection of Botticelli with the House of Medici, and dealt exhaustively with the characteristics of his works. These he divided into classes—his spiritual and his mythological pictures. As regards the latter, he said the painter's treatment of Greek myths was purely personal, and many of his pictures were intended as compliments to or satires of leading men of his time. The most striking quality in his work was that he never painted anything on which he did not leave his personal impress, and consequently his pictures could always be recognised by the colouring or some peculiar touch of naturalism. The lecture was illustrated by lantern slides taken direct from Botticelli's most famous pictures in the Florentine galleries and also in those of Europe and America, some of the views being produced by the new Lumiere process, which showed the colours of the paintings in all their original brilliancy.

RARE SEALS FOR MUSEUMS.—Two of the seven specimens of the Californian elephant-seal or sea elephant which were recently discovered by Mr. Harris, one of Mr. Walter Rothschild's collectors, on Guadalupe Island, off the west coast of Mexico, and brought to this country, are destined for the Royal Scottish museum. The specimens are at the present moment in London, and are magnificent examples of the Californian species of these sea animals, supposed to be extinct. The other specimens will go to Tring and the British museum, Mr. Rothschild having presented a pair to the latter institution. They are all more than seventeen feet in length.

A SERVICEABLE ANNUITY.—The Secretary for Scotland makes notification in the "Edinburgh Gazette" as to the utilisation of "the annuity of £2,000 payable in terms of the fifteenth article of the Treaty of Union and of the Revenue of Scotland Act, 1718." It is ordered that the money "shall until otherwise prescribed" be applied by the Board of Trustees for the national galleries Scotland "for all or any of the following purposes":—(First) Acquiring works of art for the collections in the National gallery and the National Portrait gallery; (second) promoting or assisting in the holding of exhibitions of works of art in Scotland.

NATIONAL PORTRAIT GALLERY, LONDON.—The trustees of the National Portrait gallery have recently received the following acquisitions:—A gift of the portrait of Major-

General Charles George Gordon, C.B., R.E., the heroic defender of Khartum, drawn from life in March, 1882, by the late Mr. Edward Clifford, just before General Gordon's departure for the East. A gift from Major-General Sir Coleridge Grove, K.C.B., a portrait of his father, the late Right Hon. Sir William Grove, F.R.S., the eminent experimental philosopher and judge of the High Court of Justice. A gift from Miss Alice Balfour of a portrait sketch of Joseph Mallord William Turner, R.A., an original drawing in pencil by Charles Martin, taken from life at the British Institution. The following portraits have been acquired by purchase :—Sir Henry Parkes, G.C.M.G., the Australian statesman and Prime Minister of New South Wales, drawn in pencil by Julian R. Ashton. Sir Henry Wotton, diplomatist, poet, and provost of Eton College, an old replica of a portrait at Eton College. Sir Matthew Wood, Bt., Lord mayor of London, painted by Arthur W. Devis.

ETHNOGRAPHICAL EXPEDITION.—The Percy Sladen trustees, who administer the fund for scientific research and exploration established by the late Mrs. Sladen in memory of her husband, have made a grant in aid of an anthropological expedition to New Guinea, and, on the recommendation of Professor A. C. Haddon, Dr. W. H. Rivers, of Cambridge, has been entrusted with the mission. He is shortly leaving England, and will travel to New Guinea, by way of the Pacific, visiting the Hawaiian and other islands en route. The main object of the expedition will be to gather data concerning the natives of New Guinea and to make a collection of ethnological objects, which will presumably be placed in the Cambridge museum.

LANTERN VAGARIES.—At the Manchester art gallery during the winter months, art lectures of a popular character, in which the lantern takes a prominent part, are given at frequent intervals. A very interesting one was delivered by Mr. E. R. Dibdin, curator of the Walker art gallery, Liverpool, on "Black and white art." He devoted a good deal of attention, chiefly in description of lantern slides, to the rise of etching, and gave fitting pre-eminence to Rembrandt, showing reproductions of the famous plates of the etcher's mother and "Six's Bridge." The lecturer explained, and well illustrated, the technical processes involved in etching, line engraving, mezzotint, and wood engraving. Mr. Dibdin had saved for the last some attractive slides showing fine examples of mezzotint and aquatint, but unfortunately the lantern resources gave out, and the

lecturer had reluctantly to give a less entertaining conclusion to his lecture. This is not altogether an uncommon experience at lectures at this gallery, and is so embarrassing to the lecturer and disappointing to the audience that steps should be taken to prevent its recurrence.

BRITISH MUSEUM.—An interesting acquisition has just been made by the British museum. From America—whither so large a number of works of art have during past years been exported from England, France, Germany, Holland, and Spain—there has come back a collection of drawings by Tintoretto, which is now safely lodged in the print room. The particular point of interest about this collection—itself of the highest artistic value—is that it comprises studies of important compositions at present in the National gallery.

BIRMINGHAM ART GALLERY.—A small number of citizens have joined to acquire for this gallery a collection of 105 drawings and studies in water colour, charcoal, and pencil by David Cox, who was a native of Birmingham. The art gallery already contains a fine collection of the artist's paintings, and the donors of the present gift express the hope that it may lead to the formation of a representative collection of his drawings. Those now added are especially interesting and educative as illustrating Cox's methods of study and practice.

SCOTTISH NATIONAL GALLERY.—At a meeting of the Board of trustees of the national galleries of Scotland, a report on the present composition and suggestions as to the desirable development of the National gallery collection by Sir James Guthrie and the director was submitted. The report says that the National gallery collection having come together chiefly through the generosity of individuals and societies, who have gifted, bequeathed, or deposited works of art, has been formed with no definite plan, and there never having been until quite recently any annual Government grant for purchase, those responsible for its management have been unable to supplement it in any systematic way. Considering that the generosity of Scottish collectors in the past has made the collection what it is, the committee thinks that the Board might consider the advisability of issuing a circular setting out the chief requirements of the gallery and appealing for support to the collectors of to-day. Broadly speaking, the collection consists of two sections—foreign pictures (chiefly old masters) and British pictures, both old and recent. The resources at the disposal of the

trustees being limited, the committee believes the ideal to be aimed at is the collecting examples of the more individual men or characteristic phases in each of the important schools rather than the attempt to form a large general collection, illustrative of the history of painting in all countries. As regards the Scottish section, an endeavour might be made to bring together a collection so fully representative as to present an adequate survey of Scottish painting in its historical development. In this also it might be well to place quality before quantity, and to have an artist represented by one or two highly characteristic works, rather than by a large number of less admirable examples. An effort should also be made to do justice to water-colour. The weakness in sculpture might be remedied by the acquisition of a well-selected series of casts. Separate rooms ought to be provided for work in black and white, and to a collection of photographs and coloured and other reproductions illustrating aspects of art of which the Board can scarcely hope to obtain original examples. The report goes on to speak of the representation of the different schools and of the examples. Italian art is represented by 50 pictures, three models, and one drawing. Of the interesting early developments there are scarcely any examples. There are 31 painters of the Dutch school represented. The Flemish school is represented by 16 pictures, the Spanish by 5; the French school by 17 pictures by 11 painters. English painting is very inadequately shown. Fifty-three painters and 8 sculptors of Scottish art are represented by about 100 oil pictures, 60 water colours and drawings, and 15 pieces of sculpture. To summarise—The view of the committee is that the collection as it exists has notable features the emphasising of which would materially increase its artistic importance, and that there are omissions in each department which detract from its interest alike from the artistic and the historical point of view.

ZOOLOGY OF THE EMPIRE.—The council of the Zoological Society has inaugurated an interesting scheme which, it is hoped, will familiarise visitors to the gardens with the animals and birds of the British Empire. It is proposed to hold in coming years exhibitions of the extensive fauna of the Colonies, and next June a start will be made with a special collection of the animal life of Australasia. The scheme has secured the co-operation of the State Governments and various zoological societies of Australia, and on behalf of the London "Zoo" Mr. Seth Smith, the well-

known bird expert, has left for the Antipodes, and will be followed in January by two keepers, who will take the new specimens in charge. Australian birds and animals, with a few exceptions, can be acclimatised in this country, as the southern parts of Australia are outside the Tropics. Moreover, as Australia becomes more and more civilised, those animals which are antagonistic to man and his agricultural pursuits are gradually becoming exterminated, and the few specimens which are found are naturally appropriated by the local zoological societies. Although nothing has yet been definitely settled it is hoped that Canada and various portions of Africa will send representatives of their animal life to Regent's Park in subsequent years.

SCOTTISH NATIONAL PORTRAIT GALLERY.—The bust portrait in marble of Sir Walter Scott, has recently been presented anonymously. Chantrey executed it in 1828 from sittings given by Sir Walter, as a result of the sculptor having proposed to present the original marble bust of 1820 as an heirloom to Abbotsford.

BENEVOLENT ARTISTS.—The Royal Academy is already charged with the administration of several trusts for charitable and educational purposes, and its responsibilities of this kind are likely to be still further increased by the terms of an arrangement made with the late Mr. J. C. L. Sparkes two or three years ago. Mr. Sparkes, who died last week, was head master successively of the Lambeth and South Kensington schools of art. He was desirous of founding scholarships and annuities in memory of his wife, and to devote to this purpose the proceeds of an estate in Surrey. The administration of the fund was offered by Mr. Sparkes to the president and council of the Royal Academy, who agreed to accept the duties at the expiry of certain life interests, when the estate is to pass into their hands. It is understood that the benefits of the annuities and scholarships are to be confined to women artists and students. The late Mr. Harrison Weir, the animal painter, who died two years ago, bequeathed his estate in a somewhat similar fashion—subject to the life interests of his wife and son—to the Royal Academy for the purchase of pictures “to be placed in their collection for the benefit of the nation in the same way as the Chantrey Bequest.”

CRAFTSMAN'S VIEW OF MUSEUM ARRANGEMENT.—Museums of decorative and industrial art found an enthusiastic defender against depreciation in Mr. Lewis F. Day

in a paper which he read before the Society of Arts on "How to make the most of a museum." Granting that there is foundation for the criticism that the effect of a collection of exhibits is often bewildering, he insisted that the fault is not that of the museum, but of those who come to it unprepared. Concerning the arrangement of museum buildings and their contents, however, Mr. Day had some criticisms and suggestions to offer. In his opinion museums should serve a purpose less elementary and more useful than the illustration of history by object lessons. The theory that objects should be shown as nearly as possible in their original surroundings he traces to sentiment, which he regards as out of place in a museum. The proper place for exhibits of decorative art, he contends, is where the details of their execution can be properly seen and studied by working artists. The plan he advocates is to take the arts and crafts separately, and to illustrate each one of them as thoroughly, and to show its developement as logically, as possible, so that the student of a particular branch of artistic craftsmanship may find examples brought together for minute comparison. Mr. Day acknowledged that he was pleading on behalf of one class of persons only—the craftsmen—and Sir Aston Webb, who presided over the meeting, urged that it is possible to arrange in a decorative way without sacrificing the exhibits, and that regard should be had to the wishes of the uneducated many as well as the educated few. The American practice of placing museums in public parks was warmly commended by the chairman.

ADDITIONS TO THE NATIONAL GALLERIES OF SCOTLAND.
—In accordance with the policy recently announced by the trustees of the national galleries for Scotland of building up a collection of Scottish pictures in the National gallery, the director (Mr. J. L. Caw) has just placed three more interesting Scottish pictures at the Mound. One is an excellent finished sketch by Sir David Wilkie, R.A., for his large picture in the Tate gallery, of "The preaching of John Knox before the Lords of Congregation, 10th June, 1559." The two others are modern pictures. A water-colour drawing—"A Moorish Procession," and a study in oils—"No Room in the Inn," by the late Mr. Arthur Melville, A.R.S.A. There has also been added a frame containing twelve characteristic portrait medallions by James Tassie, selected for their artistic interest. One of them is of Sir Henry Raeburn, R.A. According to tradition, it was modelled by Raeburn himself, and only cast in

vitreous paste by Tassie, and clearly marked differences in the character of the modelling support the tradition. The trustees have lent another series of twelve of the Tassie portraits to the National gallery of Ireland ; for as Tassie was for some years in Dublin his work has a special interest there. The National Portrait gallery, Queen Street, has also had several additions made to it. They are as follows :

—(1) An oil portrait of George Macdonald, the novelist and poet, painted at Bordighera, in 1897, by Miss S. C. Harrison. It is a head and shoulders, with one hand raised to the head, and is an excellent character study. (2) A water-colour drawing of Professor Dick, the well-known veterinary surgeon, who founded the Royal Veterinary College in Clyde Street, Edinburgh, and did so much to advance veterinary science in Scotland. (3) Colour print of H.M. King Edward VII., by Joseph Simpson, a young Edinburgh artist who has recently gone to London, where his work has been attracting a good deal of notice. The original of this print was purchased by the King. (4) A portrait of Sam Bough, R.S.A., by John Phillip, R.A. This is a life-size seated study of the well-known artist, showing the figure to the knees. "Sam" wears a dressing gown, and holds a palette and brushes in his left hand. It is a picturesquely designed and powerfully painted piece of work, carrying the date of 1866. It has been lent to the gallery by Mr. Hodgson, Carlisle. The other three works enumerated were purchased.

OBITUARY.—The death is announced of Mr. John Gray Jack, the keeper of the Burns relics in the municipal Edinburgh museum, and the acting curator of the museum. In 1887 the deceased was appointed custodian of the Burns monument on the Regent Road, and when in 1899 the various relics there were transferred to the city museum he retained his appointment. On the death of Mr. Ferguson, Mr. Jack acted as keeper of the museum, although he was never appointed to the office. The deceased, was eighty-two years of age.

ABROAD.

OPENING OF THE EAST WING OF THE BROOKLYN INSTITUTE MUSEUM.—The east wing of the Museum of the Brooklyn Institute was formally opened to the public on Saturday, December 14th. This wing completes the north front of the building, which has a length of a little more than 500 feet. The first and third floors of the east wing

are devoted to art. The ground floor contains work rooms. The basement will contain the library, map collections, herbarium and some offices. The second floor will be used for the display of minerals and invertebrates. Owing to lack of cases this floor is at present only partially filled; its contents include a portion of the Ward collection of sponges and corals, the collections illustrating the difference between the faunas of temperate and tropical seas and a part of the collection of insects. There is sufficient material now in storage or in the west hall to fill the entire second floor as soon as cases are provided.

AMERICA AND BRITISH ART.—The Government have issued a copy of the agreement made between this country and America regarding the import duties on British works of art entering the United States. The convention signed provides for a reduction of 20 per cent. on the former duties, which makes the tariff 15 per cent. *ad valorem*. The works favoured are paintings in oil or water-colours, pastels, pen-and ink drawings, and statuary, being the product of the industry of the United Kingdom, authorised under Section 3 of the Tariff Act of the United States, approved on July 24, 1897. This treaty will be of great service to living artists if it induces Americans to buy their works, but, on the other hand, it will encourage the acquisition and transference across the Atlantic of paintings by the great masters of the earlier British School—Reynolds, Gainsborough, Romney, Raeburn, and Hoppner. This agreement shall continue in force until six months from the date when either party shall notify the other of its intention to terminate it.

AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK.—This museum has an offer from the Belgian Government to establish in the museum an extensive exhibition illustrative of the ethnic and zoological conditions of the Congo region. Two large halls have been devoted to the exhibit. King Leopold's gift to the Americans includes some beautiful frescoes showing the scenery of the Congo and real examples of the flora and fauna of the country, while the specimens illustrating human life will appear in surroundings appropriate to the different tribes they represent. The American Museum authorities have promised to send out expeditions to collect all available data from independent trustworthy sources concerning the Congo Free State, its history, resources, and administration. This museum has also

secured a quantity of ethnological material from the Bismarck Archipelago in the South Pacific, collected by Prof. E. Schroeder,

MUSEUM OF THE BROOKLYN INSTITUTE.—The east wing, completing the north front of the building, was formally opened to the public on Saturday, 14th December. The library, map collection, herbarium, and some offices occupy the basement. On the ground floor are the work-rooms. The first and third floors are devoted to art, and sufficient mineral and invertebrate material is now in storage to fill the entire second floor as soon as exhibition cases can be provided.

CAEN MUSEUM.—The last volume of the Bulletin de la Société Linnéenne de Normandie, Ser. 5, Vol. X., published on 15th December, 1907, contains the continuation of Prof. Bigot's "Catalogue critique de la Collection Defrance, conservée au Musée d'histoire naturelle de Caen." In the present part, which occupies pages 81-135, the gastropods described and figured by Lamarck and contained in the Defrance collection are catalogued with critical notes.

NATURAL HISTORY MUSEUM, WIESBADEN.—This museum contains a large number of the type-specimens described in the works of the brothers Guido and Fridolin Sandberger. In *Jahrbuch des Nassauischen Vereins für Naturkunde in Wiesbaden*, No. 60, Dr. F. Schöndorf begins the publication of a catalogue of these type-specimens. This first instalment, issued at the end of 1907, deals with the originals of F. Sandberger's work, "Die Konchylien des Mainzer Tertiärbeckens." The specimens of the Sandberger collection have unfortunately been fastened to wooden tablets with a cement of chalk and glue, and, since it has frequently been necessary to remove some of them for examination, many of them have been destroyed. Dr. Schöndorf also states that many of Sandberger's original labels have vanished, so that uncertainty attaches to some of his determinations, especially in those cases where Sandberger also utilised specimens found in other museums. We mention this fact as a warning to other curators.

MUNICH NATIONAL MUSEUM.—The Kaiser last month attended the meeting of the committee of the National museum, which is in course of collection in Munich, and which, when completed, will cover 400,000 square feet, thus being some seven times the size of the South Kensington museum. In the course of the meeting, Dr. von Miller, who originally suggested this national movement for the

public benefit, referred to the great support the idea had received from all classes, and said that the collection, even in its present state, and displayed as it was in entirely inadequate rooms, had been visited by 200,000 people during the past year. He appealed, however to the same national feeling to provide funds for the erection of further great buildings, which, as he observed, will make the museum the largest and perhaps, from a national standpoint, the most complete in the world. As a matter of interest it may be noted that the whole material and all the contributions to the museum are conveyed free over all German railways, whilst the cement companies have decided to provide all cement for the new buildings entirely free of charge. The Kaiser, with whose Imperial ideas the project is entirely in accordance, took the keenest interest in the report, and after the meeting made many inquiries as to the progress of the collection in a scientific respect.

RECOVERY OF ANCIENT SCULPTURE.—The latest report of the Communal Commission of Archaeology at Rome tells of the discovery of several admirable statues found in various parts of Rome in quite recent times. A very interesting find is the statue of Minerva found in the grounds of the ancient Pretorian camp. In this place there were several shrines dedicated to the tutelary deities of the soldiers, and Minerva was one of these. The statue was headless, and although it was easy to recognise that it was Minerva, it was deemed advisable to seek in the municipal collection of fragments a head of Minerva to put upon the figure. By a happy coincidence the head selected was seen to be the original head, and the broken edges of the two pieces fitted one into the other, so that now this part of the figure is complete. The arms, however, are broken off close to the elbows, and the nose has been smashed to the level of the face. The statue is fully draped and is of excellent style—a noble, stately figure of the ancient goddess of Athens. In the villa Patrizi a headless female figure, fully draped, has been found. It is formed of that beautiful Greek marble known as pentelico, and has been entitled Irene. The head had been carved apart from the rest of the figure and inserted in a hollow cut for it between the shoulders. It is supposed to be a Greek work of the Attic school, dating from the fifth century B.C.

MUSEUMS ASSOCIATION.

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The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of 10s. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

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Experience of Sunday Opening at Dundee.

BY JAMES DUNCAN.

[Read at the Dundee Conference, 1907.]

I N speaking on this subject I cannot claim to do so on the ground of long experience, because, as a matter of fact, our Sunday opening in Dundee has been quite a brief one—only 19 months—but I will try to compensate the Association for that by inflicting on it a very brief paper.

There is, however, one rather special feature in our case, ours is the furthest north museum—imperial or civic—which ever opened its door on a Sunday in what we are frequently told is “Sabbath keeping” Scotland. And one rejoices to be able to say that the opening did not arise from any hostility to Sunday either as a day of religious observance or of rest, rather, indeed, as a supplementary aid to these.

The town council and the citizens had to face the hard concrete fact that on Sunday afternoons and evenings, especially in the winter months, great numbers of persons, a very large proportion of them young of both sexes, paraded the streets in the centre of the city, did not and would not go to church in the evenings. In doing so these crowds were following one of the earliest and most powerful of human instincts, the habit of gregariousness, the yearning for human society, the old world habit of drawing near to their own people. In itself this is perfectly laudable and natural, but, like many other human instincts, it may be abused, for, in the dark and stony-hearted streets, with all their levities and coarseness, the crowd, being governed by that curious but well recognised law that it is affected as

a whole by the most foolish and perhaps most wicked of its members, tended to other habits rather than decorous conduct and restrained speech.

This then was the problem, there was the dark, overcrowded streets and the noisy light-hearted, light-spoken crowds, and in close vicinity many churches with able, earnest preachers and attractive music, but, as I have said the crowd did not, would not go to church in the evenings.

After long patient waiting those on whom the problem weighed sadly, proposed that the art galleries and museum and the reference library and reading room should be opened on Sunday. Rather unexpectedly the proposal was agreed to practically unanimously by the town council and the museums committee. There had been opposition to the running of the tramway cars on Sunday, and on a plebiscite a majority of the ratepayers voted against it, but a year or so after the majority was on the other side, and as a result there was no strong opposition to the opening of the galleries and museums. Doubtless there were members of the committee of management theoretically opposed to the proposal, but no motion against it was made, and most of the members who were doubtful now recognise that this Sunday opening is not only a good thing in itself, but it has not produced new evils.

The members of the staff were informed that if they had conscientious objections they need not come on Sundays, and a few did so abstain. After a time some of these became satisfied that the opening had produced good results and volunteered to assist, and a rather amusing feature of this was that in the case of one or two of the junior assistants who had conscientious objections, these did not extend to breaking the Sabbath by coming as spectators—they had evidently never heard of the proverb which truthfully alleges that the receiver is worse than the thief. As one of those who from the outset has taken a regular share of Sunday work I am convinced that Sunday opening of galleries and museums is not only the good thing in itself that I have spoken of, but that instead of tending to

secularise the Sunday and entice people not to go to church, I feel sure that it has precisely the opposite effect, and that it will ultimately tend to increase the number of church goers. This, of course, on the assumption that the opening is confined to afternoons and evenings. Those opposed to Sunday opening will smile at the suggestion that the ultimate result of opening museums and art galleries on Sunday afternoons and evenings may tend to bring non-church goers back to church, but this is really a logical result. The inhabitants of Great Britain have nearly all emancipated themselves from the merely superstitious feelings which drive people to worship. Most of the citizens of our empire offer an intellectual spiritual worship, and consequently anything which tends to educate and raise the mind will have such an ultimate result. What can better do so than museums which display the marvellous work of the Great Creator, or the realised beauty of nature as displayed in works of art. Even the lesson of reticence of speech, of restraint in conduct, the visitors are compelled to learn, all tend to produce the frame of mind which makes for spirituality. It may be not of an advanced, far less high type, but it constitutes a hopeful beginning.

The distinct improvement in the attitude and conduct of the very large numbers who at once thronged the galleries is also a hopeful sign. The young people of both sexes, who evidently come for mere pastime, animated conversation, and even flirtation, were taught that these were not the aim of art galleries and museums, and were compelled to silence.

The lectures and lecturettes regularly given always attracted a proportion of the visitors, and the proportion steadily increases. In a town with a population of say 170,000, 4,000 visitors in five hours, as we have had, is a large number, and it is certain that a large proportion of these will be interested and refined. We claim no special merit in having such large numbers of visitors, this arises to a great extent because our museum is in the very centre of the streets, crowded with people on Sundays and holidays.

Rather an interesting feature is that it has shown there is a natural law regulating the attendance. Our central museum being thus in the centre of crowded streets has the largest attendance on a wet day. Our technical museum, in the centre of a park, has the largest attendance on a fine day, for fewer people resort to the parks on a wet day.

To sum up. Our Sunday attendance has been, for the size of the town, very large, the behaviour of the visitors, never very bad, has steadily improved, and an intelligent interest is displayed in the objects and works of art, pictorial and applied. The officials in charge, from the first, went into the new departure in no hostile spirit, but hopefully and helpfully, trying to get all possible good out of it, with the result already mentioned, that there is such distinct proof of educative progress as to justify our belief that ultimately the art gallery and museum, so far from being regarded as a rival, will be welcomed as an important aid to the church.

DISCUSSION.

Mr. SOUTHWELL: This Sunday opening is a step in the right direction and preserves a tendency of directing the people rightly. They are attracted in large numbers to these instructive institutions. In Norwich we have long opened our museum on Sundays, and we find that it has been highly successful. I was very much astonished to hear that in Ipswich they opened their museum on Sunday, but it had to be closed eventually. We had something like 700 visitors every Sunday, and we have never, since the opening of the museum found it necessary to eject any visitor or find fault with the conduct of those who attended. I am glad to hear that it is extending.

Mr. HOWARTH: It is just twenty years ago since we opened the art gallery in Sheffield on Sunday, from 2 to 5 p.m. We have always had a large attendance, the average attendance in the first ten years being about 1,800. A wet Sunday brought the attendance down greatly. Recently the number of Sunday visitors has steadily decreased in all towns, and in Sheffield we do not now have more than 1,200. The decrease has been regular each year. What is the cause of this I do not know, but it is an absolute

fact. However, our present attendance is sufficiently large to justify the opening of the galleries on the Sundays, and I hope it will be always so and that it will never be closed on that day. In regard to conduct, it was rather curious that, at first, we had to have the whole of the attendants on duty—about nine—and the people in Sheffield seemed to make a promenade of the galleries, and when the Sunday schools broke up there was a rather rowdy element in the gallery. Girls came with their bibles in their hands, walking round the galleries laughing and behaving in a conspicuously frivolous manner. We had, in fact, to ask a great many of the girls to leave the gallery. The reason probably was that they had been confined in school and that they were enjoying their freedom—it was perhaps right, but we did not want them to do so in the gallery. This phase soon ceased and the visitors became thoroughly orderly and appreciative of their rights and privileges. The benefit of Sunday opening to the working-man is not now so great, because he has many opportunities for visiting the museum and in seeking intellectual recreation, which he uses in a fair manner. What struck me most about those who came on Sundays was the fact that the manufacturers are presumably so busy making money all week that they have little time to give to other pursuits on a week-day, so come on Sunday to enjoy the pictures. And most of all it has been a great boon to the shopkeepers, who are confined, perhaps, more than any other class, and I was very much impressed with the numbers of them who came on the Sundays, and they, without doubt, enjoy our art treasures. Sunday opening to my mind is the right and proper thing for an art gallery, and the opening need not interfere in any way with the religious services. Wherever Sunday opening has been tried it has been a success as regards the art gallery, and really the actual numbers attending have very little to do with it.

Mr MAY: At Manchester the interest is maintained by the delightful addresses given by Prof. Boyd Dawkins on certain Sunday afternoons. The reason why the attendance falls greatly is that the ordinary visitor, having several times gone round the gallery, has no further interest in it, unless it is for social purposes.

The Royal United Service Museum.

THE Royal United Service Museum, which is under the control of the council of the Royal United Service Institution, was founded by His Majesty King William IV. on 25th June, 1831. The museum was transferred to its present building in 1895, the building being the Banqueting House of Whitehall Palace and the scene of the execution of King Charles I. It was built by Inigo Jones between the years 1619 and 1622.

King Charles I. commissioned Rubens to paint the ceiling; it is divided by a rich frame-work of gilded mouldings into nine compartments, with allegorical subjects. The centre one represents the apotheosis of James I.; on either side of the ceiling are oblong panels expressing the Peace and Plenty, Harmony and Happiness, which, according to the painter's fancy, signalised the reign of James I.; and in the other compartments Rubens' patron, Charles, is introduced in scenes intended to represent his birth, and his coronation as King of Scotland; while the oval compartments at the corners are intended, by allegorical figures, to show the triumph of Virtue over Vice. Rubens was paid by Charles I. the sum of three thousand pounds and received the honour of knighthood for his work, in which, according to Sir Godfrey Kneller, he was assisted by Jordaens. The sketches were made in England, probably on the spot, but the actual painting was executed and completed in Antwerp in the year 1635.

The ceiling has been five times restored. In the reign of George II. by Kent; in 1785 by Cipriani; in 1837 under the direction of Sir Robert Smirke (when the entire building was restored at a cost of £15,000 by Sir John Soane), again at a later date in the 19th century, and lastly in the years 1906 and 1907.

The last restoration of the pictures was commenced in December, 1906, and completed in August, 1907. In September and October, 1907, the entire hall was re-painted,

and on the museum, which had been closed to the public since November, 1906, was re-opened on December 21st, 1907.

The entire museum has been re-arranged and catalogued by the curator (Lieut.-Colonel A. Leetham) and the assistant-curator (Mr. B. E. Sargeant). The models and cases have all been placed in such a way as to receive the greatest attention from the visitor. Throughout the re-arrangement the student of history has been always considered, and it is hoped that the facilities for study have been greatly augmented by the new positions of the exhibits. On entering the upper room by the main entrance all the naval exhibits are found on the left hand side, the right side of the hall being entirely devoted to the army. Of these two main divisions there are again sub-divisions, until it is found that every exhibit has its position for some specific reason.

Where there are collections of models or exhibits each has been arranged so as to give the student the opportunity of comparison ; for example, the collection of muskets is contained in chronological order in sixteen racks, and the same plan has been carried out in the case of all collections of exhibits.

The lower room, on account of the pillars, is of necessity cut into three sections. The right section, on entering, is devoted to models of artillery and details connected with ammunition. The centre section contains guns of historical interest, together with specimens of modern quick-firing guns. The section on the left is devoted to miscellaneous exhibits, the most recent addition being the figure-head of the "Royal George," Royal yacht, which his Majesty The King has lately contributed. An attempt has been made in this lower room to illustrate the costumes of the different regiments from earliest times by means of coloured engravings, and it is hoped to add to the collection periodically until a complete sequence has been obtained.

At the north end of the building and in the gallery are found the ethnographical collections ; and on the main staircase are trophies of weapons taken during the mutiny in India.

Museum Notes.

By F. W. FITZSIMONS.

Director of the Port Elizabeth Museum.

THE recorded numbers to the Port Elizabeth Museum in 1907 were: January, 9,035; February, 9,355; March, 13,392; April, 19,603; May, 13,401; June, 16,489; July, 16,737; August, 33,050; September, 19,917; October, 16,694; November, 22,379; December, 20,712—total, 211,224.

A few days ago I visited Somerset East, and the principal of Gill college kindly allowed me to have a look at the college museum. I was astonished to find that they possessed so fine a collection of really excellent specimens, well prepared. The collections of birds, insects and anatomical preparations were particularly good. I understand that Gill college is to be converted into an ordinary high-grade school, and that it will no longer be classed as a college. The special grant for the museum and library departments will also be withdrawn. This will mean if there be no funds available the museum department will fall into decay, and hundreds of pounds worth of specimens will probably go to ruin. Somerset East is a flourishing town, and it is a pity that they have no public museum. It would be an excellent plan if the college museum could be handed over to the municipality to form the nucleus of a museum for the town, which in course of time would develop into a fine educational institution, attractive in itself, and a powerful factor in the education of its children.

I should very much like to see the various small towns and villages start museums of their own. It could easily be managed, and the expense would be trifling. The Port Elizabeth Museum could act the part of foster-parent, and I would be only too willing to render all the aid in my power in the formation of small museums, provided, of course, my committee approved. The time will come, I hope, when all the small towns and villages in the Eastern Province will be

able to boast of having a museum of their own, and by that time, perhaps, we will be able to afford a good limelight lantern, and plenty of lantern pictures on all the different departments of natural history. Thus provided, I could come along now and then and give lantern lectures to all the children in each centre, and thus spread a knowledge of natural history in its different branches.

Among the number of ethnological specimens in the museum we have what are termed "Bushmen's stones." These stones are more or less round, with holes bored through the centre. The theory put forward by anthropologists is that they were formerly used as weights to digging sticks. These stones are mostly fashioned from dolerite, one of the hardest of igneous rocks, and the process of boring big holes through such rocks must have entailed an immense amount of work, seeing that the Bushmen had nothing but bits of chipped stone to do it with. It was far more reasonable to think that these stones were used as missiles, poised on the end of a stick, and used in warfare and hunting. They might have had another use. Might not they have been used as household gods? We all know that savage tribes have their particular modes of worship, sacrifice, etc., and belief in charms and talismans. Phallic worship was very widespread, and is the oldest, or one of the oldest, forms of worship. The researches made of late in Rhodesia at the Zimbabwe ruins, have disclosed the fact that their original inhabitants were Phallic worshippers. Now, it is very reasonable to suppose that the Bushmen of old picked up the custom, or were taught it, by the ancient inhabitants of that mysterious city, which is now termed the Zimbabwe ruins.

One strong point in favour of the theory that these stones were symbols of Phallic worship is the fact that they entailed such a phenomenal amount of labour. Just imagine, if you can, boring a big hole, a couple of inches in diameter, through a pebble of flinty rock, as hard or harder than granite, and as big as an ostrich egg. If such a stone were prepared as a household god we could quite

understand that the Bushmen would be willing to take an immense amount of trouble over it; but it seems unreasonable to suppose that so much energy would be wasted in fashioning these stones as weights to digging sticks, when so many other simple devices would have answered the purpose—devices which would have suggested themselves to a savage mind much quicker than spending many months laboriously boring a hole through a hard, flinty rock. The mystery in which these stones is shrouded naturally makes us all very curious and desirous of solving it.

Books.

TREES AND THEIR LIFE HISTORIES. By Percy Groom, M.A., B.Sc.
Illustrated from Photographs by Henry Irving. Cassell and Co., 1907. 25s. net.

Author and illustrator are alike successful in making their purpose plain, Mr. Groom's style having a delightful freedom of direct expression which takes his facts home with full intelligible apprehension. Even the tyro in botany would not fail to gather a reliable and complete knowledge of trees from carefully reading this excellent book, and closely examining the equally admirable illustrations.

Preceding the more systematic classification of trees, there is a description of their several parts and their functions, divided under various headings which greatly facilitate reference, treating the tree as an active and living organism in language clear and comprehensive, without any unnecessary technical terms, which when they occur are fully amplified and explained. Some rather occult expressions appear with meanings not too deeply hidden to entirely obscure the philosophy underlying them, as, for instance, "A tree possesses the faculty of inevitably doing the right thing—a faculty of which man's reasoning power has robbed him." "Plants are grouped together

according to their 'blood' relationships," and after defining the two divisions of the Phanerogams, the author briefly makes plain the meaning of the arrangement whereby plants are divided into other minor groups, describing fully the characters which distinguish them. Distribution, survival, or extermination, receive shrewd and lucid consideration. Then comes a systematic description of the different species and varieties of trees in the British Isles, whether native or imported, dealing with them in all their functions and aspects, the descriptions being amplified by illustrations of every form, in leaf, flower, fruit, bark, as well as the full-grown tree. These illustrations number more than 500, from photographs by Henry Irving, with which curators are familiar from the admirable series of photographs of trees prepared for museums by Mr. Irving. If not already in every museum they ought to be, as the best illustrations of the forest forms in botany that could possibly be placed on view. The photographs have lost nothing in the reproduction, for the whole of this book is printed on white art paper, making it possible to examine every detail of structure of the specimens shown with the greatest ease.

ORNITHOLOGICAL AND OTHER ODDITIES. By Frank Finn, B.A., F.Z.S. London. John Lane, 1907. 10s. 6d.

There is nothing particularly odd about the papers gathered together in this book, except that the author has been able to observe the thrillings and throbbings of the birds under excitations and emotions that are not usually observed with such discernment as Mr. Finn has brought to the subject. He discourses with quite familiar knowledge on sexual selection, courting, love, toilet, blushing, mimicry—all among the birds, and introduces us to their inner lives in a manner that could only be done by one who had watched their haunts and habits with the closest care. Most of the articles are short—too short, and have evidently been gathered together from various periodicals where they originally appeared, for it is quite obvious that they were written for general rather than

scientific readers. Mr. Finn expresses the "belief that the man in the street has more interest in natural history, as in other intellectual matters, than eclectics would credit him with"; and there is not the slightest doubt that such interest will be strengthened and stimulated by these delightful essays. Mr. Finn is a traveller as well as a student, and was for eight years in the museum at Calcutta, so the knowledge of his subject which this book so prominently evinces can be readily accepted. There is no systematic dryness of the closet naturalist in it, the pages breathing of outdoor observations, portraying truly the hidden mysteries of avian impulses and habits in directions that touch the more subtle functions of their lives. Much may be learned from it of the greatest service to those who have to make bird life familiar to the public, with the added charm of taking the reader with delightful ease under the most alluring guidance amongst the homes and haunts of the most captivating of man's pets. As a complete biography of a bird nothing could excel his chapter on "The Domestic Life of the Dabchick." More than fifty illustrations reproduced from photographs show form and habits with singular fidelity and clearness. We can commend the book most heartily.

A GUIDE TO THE STUDY OF AUSTRALIAN BUTTERFLIES. By W. J. Rainbow, F.L.S., F.E.S., Entomologist to the Australian Museum, Sydney. Melbourne, 1907. T. C. Lothian. 3s. 6d.

This is a handy little book of two hundred and seventy odd pages, with six plates and 184 figures of eggs, larvæ and imagines in the text. It contains a large amount of information on the life-history of many Australian butterflies, but we can hardly agree with the author that this constitutes the alpha of the subject—at least we know from experience that the first need of the beginner is some means of identifying his captures, and we are certain that a simple table which would enable the tyro to name his captures, even if only approximately, would be a highly useful addition. The chapter on collecting and preserving contains many good hints; and, notwithstanding

our opinion as to the desirability of a table, the book as a whole contains so much that is new and interesting as to ensure it a hearty welcome from our Antipodean brothers of the net and pin.

Museum Publications.

Bristol.

The report of the committee for 1907 is with one exception, which will be dealt with later, a most pleasing and favourable one. A great deal of useful work has been done and the collections have been largely increased by donation and purchase. One event of great importance is the establishment of a section of economic botany. This has been done as a result of the association of the museum with the university college, and excellent results may be expected from the conjoint working of the two institutions. The new section is growing rapidly; collections of galls and gall-flies, of specimens of grafting, of orchard pests and of insect and fungus foes of forest trees have already been received. The mollusca in the museum have been remounted, and printed labels are being steadily turned out to supply the new collection. From the Clifton zoological society have been received the carcass of a lion, of Lalande's dog and of a chimpanzee. The Board of Education has given generous help towards the purchase of educational specimens and examples of local glass and china. Dr. Harmer's method of putting the labels for spirit preparations and specimens on opal glass inside the bottle has been adopted. Students and school children have used the collections freely, and the curator has given a good many demonstrations to school children. Both he and the superintendent of the art gallery have given public lectures which have been well attended. Three loan exhibitions have been held in the art gallery, the first (visited by 176,760 persons) was of the works of Stott and his con-

temporaries ; the second (97,534 visitors) was devoted to the old masters ; the third (which was visited by 170,357 persons) consisted of the work of modern painters, including a good series of Edwin Long's pictures. A great deal of work has been done in the archæological section and the local collection of glass and ceramics has received many additions. It is, however, a matter of regret that the accommodation for Bristol's rapidly growing collections should be insufficient. On the occasion of the visit of the Museums Association in 1906 several of the curators present were struck by the fact that the space provided for the exhibition of the collections was not what it should have been, considering the excellence of those collections and the fame and dignity of the city that possessed them. And to those who have not yet seen the museum two points in the report will speak eloquently : first, that the museum and art gallery were visited by 538,689 persons ; next that the osteological collections are still largely in the attic and the geological collections in the cellars. Bristol may justly boast of her splendid new museums. It is to be hoped that before long steps may be taken to make her exhibited collections in natural science worthy of her great fame as a centre of learning and enlightenment.

Brooklyn.

A book of 80 pages, illustrated by ten plates, records the work and progress of the museums of the Brooklyn institute of arts and sciences for 1906. Additions has been numerous, the most striking are : MacMounie's " Bacchante," Fantin-Latour's portrait of Mme Léon Maistre, Whistler's portrait of Miss Florence Leyland, the Ward collection of corals and sponges, and the Munford collection of shells. The latter contains 2,200 species and about 12,000 specimens. A large number of specimens has been set up, and a great deal of labelling has been done. In the latter department 4,550 individual and 378 descriptive labels have been printed, and this represents only a fraction of the work done by the printing press. Specimens of

descriptive labels are given on pages 72-77. Much educational work has been accomplished ; 129 teachers and 1,703 pupils have visited the institution during the year. The total attendance at the Central and Children's Museums during the year was 229,028, an increase of 12,964 on 1905. Successful field expeditions have been undertaken by members of the staff. In the children's museum a great deal of work has been done. Perhaps the most notable feature is the preparation of three historical model groups, illustrating English, Spanish and Dutch settlers. In the children's museum 243 lectures were given during the year and were attended by 17,253 children.

Dresden.

A minute analysis of attendance, entrance money, income, acquisitions, &c., is given in the report for the years 1904 and 1905. This period compares somewhat unfavourably in the matter of attendance and finance with the previous one. But museum work shews no sign of falling off and the additions are numerous and, in many cases, important. Twenty-one oil-paintings have been added to the picture gallery during the two years, and a large number of engravings, etchings, photogravures, &c., have been acquired. During 1904 145 artists made copies in the picture gallery ; in 1905, 366 pictures were copied by 132 artists, of whom 36 were foreigners. We regret to notice that a small picture (Jan Brueghel's " Rundturm am See-Ufer ") was stolen, in spite of the extra precautions taken after the theft in 1889. To the collection of sculptures 96 original works have been added, besides many casts. A beautifully worked gold chain, 36cm. long, found at Zwickau, has been obtained for the green vaults. The collections of coins, minerals, arms, ceramics and apparatus have been considerably enriched, and the library has received numerous additions. In every department Dresden has kept up her high reputation for museum work both in science and art.

Dublin.

The director, in his report on the Dublin institutions of science and art, expresses his deep regret at the loss of Mr. T. H. Longfield and his keen appreciation of the work done by the late keeper of the art and industrial collections. The report gives a list of various expeditions and visits made by members of the staff, for purposes of instruction and acquisition. Among them are mentioned the attendance of Dr. Scharff and Mr. White at the Bristol meeting of the Museums Association. The issue of publications has continued ; Part IX. on glass has been printed and also five chapters have been added to Part VII. Of the half-penny guide to the museum—which is now in its forty-second edition—14,566 copies have been sold during the year, and the sale of the half-penny guide to the Royal Botanic gardens has reached 3,891 copies. The eleventh series of museum demonstrations, consisting of fifteen "Floor Lectures," has been given, and with encouraging results. Additions to the collections during the year have not been numerous or important—except perhaps to the department of musical instruments. Mr. Coffey's arrangement of Irish antiquities is approaching completion and visitors will shortly have an opportunity of seeing a series illustrating Irish industrial art from the stone age to the introduction of christianity. Much educational work has been done in the botanical division ; about 250 teachers and students have used the herbarium. Professor Johnson has also named several hundred specimens for enquirers. In the geological department a great deal has also been accomplished Professor Cole reports that labelling and arrangement have been finished, and that specimens for an introductory series and for two circulation collections have been selected.

Dunedin.

The report on the Otago University museum for 1906-7 is a record of good work and steady progress. The most important event chronicled is the preparation made for adding a wing to the building in order to accommodate

Dr. Hoeken's splendid offer of his library and collection of pictures, maps, &c. Dr. Benham sent a characteristic series of New Zealand mammals, birds and fishes to the Christchurch exhibition. This collection does not seem to have been treated by the exhibition authorities in a way commensurate with its importance. Almost every department has received additions of value and interest. The attendance has been satisfactory, and the museum has been visited by a good many teachers and pupils. Dr. Benham identified a large number of specimens sent to him for examination. Amongst other items of his work may be mentioned the collection of a number of land invertebrates from the Bounty, Auckland and Campbell islands, when he accompanied the governor on a visit to these groups. It is to be regretted that an institution in which such excellent work is being done should receive no better support from the university council than an annual grant of £10.

Hull.

The publications of the Hull museum during 1907 shew an even increased activity on the part of that institution. Nos. 38 and 39 are devoted to a collection of Roman antiquities from South Ferriby; the former number giving a description and the latter figures (on six plates) of the objects found. Many specimens of unusual interest were found, notably some enamel brooches (one in the form of a fish), some silver Brigantian coins and three aucissa fibulae—one fragmentary. Quarterly record, No. XX. (Publication 42) describes several interesting additions—Roman querns from Ferriby, a man-trap from Robin Hood's Bay, a gold noble of Edward III., found in Hull, and some of Carte's original life-rockets. An interesting account of the old citadel during the last century of its existence is appended. The later quarterly records (XXI., XXII. and XXIII) contain a number of articles relating to specimens added to the collections. A British chariot burial at Hunmanby, old Hull pottery (Belle Vue), ants' nests (one of which is now exhibited in the museum), relics of

coaching times, copper coins of Charles I., molars of *Elephas antiquus*, relics of Hull and Whitby whalers, a Roman amphora—these are some of the most prominent of the objects described. There are also articles upon the Patrington sun-dial, and the mediæval parish library of Holy Trinity, which has been handed over to the museum by the church wardens under a faculty granted by the Archbishop of York. Publication No. 44 deals with a malformed antler of red-deer from Sutton-on-sea, fossils found at Speeton (*Perisphinctes lacertosus*, *Steneosaurus*, and *Caturus*). No. 46 gives an interesting series of notes on the more important archæological discoveries made in Yorkshire east of the Wolds and in the Humber district. Various "finds," such as those at Ulrome, Cave, Ferriby, Arras, Harpham, Brough, &c., are described and classified chronologically. In No. 47 there is a description of the chariot-burial at Hunmanby mentioned in quarterly record No. XXI. It is illustrated by a plate figuring the bridle-bit found among the relics.

A new edition of the penny guide to the municipal museum has been issued. This has been rendered necessary by the extensive alterations and additions that have been made since 1904. These have been so great that the new edition is practically a new book. It is illustrated by a plan and four plates, showing the hall of antiquities, of architecture, the skeleton of Sibbald's rorqual and two canopied niches from Beverley. The guide opens with a history of the collections and then gives a general description of them under the head of antiquities (British and Anglo-Saxon, Roman and General), ethnology, natural history, china and miscellaneous. It is clearly worded and well printed, and in every way what a small hand-book for the ordinary visitor should be. The penny guide to the Wilberforce museum is an equally useful little hand-book. It opens with a description and history of the interesting building in which the collections are housed and briefly summarizes these collections, which consist of specimens illustrating the past of Hull. Special interest attaches to the series of whaling implements and appliances to which a special room is devoted.

India.

MEMOIRS OF THE INDIAN MUSEUM, Vol. I., No. 1. An Account of the Rats of Calcutta, by W. C. Hossack, M.D.

This, the first part of a new series of Indian museum publications, is a most careful piece of work, and particularly interesting in view of the recent experiments on the connection existing between rats, their fleas, and the spread of plague.

Our knowledge of the Indian *Murinæ* is in a chaotic state, notwithstanding the foundation laid by Oldfield Thomas 27 years ago, and one heartily wishes that certain other writers had possessed the power of discrimination displayed by Dr. Hossack. He finds four species of rats in Calcutta and gives tables, descriptions, notes and plates, which should make identification a simple matter. The six coloured plates are, however, badly drawn, the colours are obviously incorrect, and it is to be hoped that future publications will show a higher standard in this respect. It is most disappointing to an author to find that work, which must of necessity be placed in other hands, is not executed in a manner matching his own efforts.

The author is too modest, and we would re-write a sentence on page 5, referring to the Indian *Murinæ* in general, to read: "Is it too much to hope that Dr. Hossack will give us a classification free from the redundancies and overlappings that at present exist." He is on the spot, and the care and judgment shown in the comparatively small piece of work before us inspire confidence.

RECORDS OF THE INDIAN MUSEUM, Vol. I., Parts I. to III.

This publication is intended to take the place of "Indian Museum Notes" (now incorporated with the publications of the Indian agricultural department) and the first three numbers contain a variety of papers and notes, chiefly of a descriptive and faunistic character, on Indian zoology. The subjects range from Protozoa to Mammalia, and it is especially gratifying to find that an attack is being made on other families of Oriental Diptera besides the *Culicidæ*,

one of the most important papers in the three numbers being a "Revision of the Oriental Stratiomyidæ," by E. Brunetti.

Ipswich.

The year ending September 30th, 1907, has been one of much work and considerable growth in the Ipswich museum. A large case of African mammals in the central hall was completed and was formally unveiled by the mayor in the presence of a distinguished gathering. The authorities of the Victoria and Albert museum, London, have made a grant-in-aid of £150 towards this object. Amongst other items of museum work may be noted the re-arrangement and naming of the mineralogical collection, the alteration of the colour of the wall cases from white to pale green, and the substitution of glass for wooden shelves. The curator has given a number of lectures to school children, and of "At Homes" (during the winter) to bodies such as the Y.M.C.A., the Y.W.C.A., the field club, &c. Miss Layard has largely added to the Anglo-Saxon relics obtained from Hadleigh Road; seven plates are given in the report to illustrate the collection obtained. The report also contains a cordial reference to the forthcoming meeting of the Museums Association.

London.

The report on the Horniman museum for 1906 opens with a reference to the death of Mr. F. J. Horniman, the founder of the institution. Few men have left behind them such a magnificent token of generosity and public spirit. A large amount of work, chiefly of re-arrangement has been done both in the ethnological and natural history departments. It is not intended to base the arrangement of the main zoological collection on classification, but to illustrate the manner in which the structure of animals is adapted to their surroundings and mode of life. A list of animals exhibited during the year in vivaria and aquaria is given, and the names of those animals obtained in the neighbourhood of the museum are marked with asterisks. Courses

of Saturday afternoon popular lectures were given in the museum. In the case of the former a syllabus was prepared for each lecture and was sold for a penny. The attendance of visitors, 177,086, shews a decrease of over 18,000 on the figures of the previous year. Of this decrease more than two-thirds (*i.e.* over 12,500) is due to falling off in the number of Sunday visitors. Over a hundred parties from schools and colleges, representing more than 2,500 persons, have visited the museum during the year.

Museumskunde.

Vol. III., part 3 begins with a short article by the editor on the Bavarian commission on art collections. Dr. Koetschau's treatment of the commission is fair and temperate, but he firmly insists on the necessity of leaving action to the director himself, quoting with approval Sir Martin Conway's dictum "you must have a man." An individual and not a commission must be directly responsible for the growth and well-being of the collection. Dr. Woermann, in an interesting article on "the space-question in the Dresden picture gallery" gives an historical sketch of that famous institution from its foundation by Augustus the Strong, in 1722. He also has an important discussion on the relief afforded to the institution by the loan of pictures to other Saxon institutions, and by the proposed formation of affiliated galleries in other cities of the kingdom, and he compares what has been done in Saxony in this direction with what has taken place in other parts of the Empire. The extension of the present galleries is strongly recommended. Herr Marktanner describes some forms of apparatus to be used in the photographing of museum specimens. The writer deals with all possible cases, the photographing of large objects, microphotography, reduction and enlargement. The article is illustrated by woodcuts of the apparatus described, and a simple formula is given for use in cases where a definite relation is required between the size of the object and that of the photograph. Dr. Karl Simon, in advocating the formation of a central

institute for reproductions of German art, deplors the inadequate and unsystematic way in which art reproduction is carried on in Germany. The number of good photographs of German 19th century pictures is small; architecture, sculpture and national monuments are in even worse case than painting. He contrasts this condition of affairs with that in Italy, where photographs and models are abundant. This has resulted in the German artists turning to Italian art and neglecting their own. He advocates the establishment of an institution in which copies of German works of art could be conserved, and which should be in communication with art centres and craftsmen throughout the empire. Dr. Pazaurek contributes a short article on the question of symmetry and proportion in exhibitions, with special reference to the Stuttgart exhibition, held at the end of 1906. The question of æsthetic and systematic arrangements are briefly discussed, and the writer points the moral that while the individual object is of more importance than its context and setting, it would be a mistake to shew carelessness in its exhibition. Dr. Lauffer continues his examination of historical museums, dealing mainly in the present (fifth) article with the art of collecting. The question of local objects of interest is dealt with at some length and the writer eloquently exposes the selfishness of the private collector who either keeps objects of public interest from public view, or—if he fails to obtain them—forces up their price for the museum authorities. The question of the use of models and other reproductions is fully considered and the writer insists on their great utility. Under the head of "Notices" there is an abstract of bulletin No. 25 of the Boston museum of fine arts (reviewed in the *Museums Journal*, vol. VI., pages 396-7), which describes the appointment of a "museum-docent" and the use and functions of his office. There are also short notes on the care of public monuments by museums and on small museums.

Perth, W.A.

The report on the Western Australian museum for 1906-7 is one that reflects great credit on the museum workers, and very little on the government of the country. Additions to the collections have been numerous, and the attendance has been abnormally large, but this is chiefly owing to the presence of other attractions in the city. The art section has received accessions of casts, oil paintings, water-colours and engravings; to the arts and crafts department have been added electrotypes, pottery, glass, &c. Over 400 specimens have been added to the ethnological collection, largely through the activity of the Bishop of Carpentaria and the Bishop of Melanesia. The most notable addition to the natural history collections is a cast of the skeleton of *Diprotodon australis*. With the recent additions included, the natural history department now contains all but seven of the species of Western Australian marsupials. Many of the additions to the museums have been obtained by exchange with the authorities of the Sydney and Adelaide museums. Lectures continue to be given with great success, the audiences average 140, which is as many as can comfortably be seated in the lecture room. In the zoological department the curator has wisely aimed at completing the section of vertebrates before seriously taking the invertebrata in hand; arguing rightly that the former stand in imminent risk of extermination and the latter do not. The amount of work required for dealing with such a number of acquisitions in so many departments and the care and preservation of specimens in a country where insect pests are numerous and active, may be readily surmised; it is clear that the staff of the museum must be zealous and energetic. This makes it the more disappointing to note how ill their efforts are seconded by those to whom they might naturally look for encouragement and support. The grant to the museum has been cut down. Not only so, but the relief from duties which has been granted to all other educational institutions, has been refused to the museum. A duty of 35 per cent.

is charged upon photographs of works of art and upon lantern slides—both necessities to the institution. Another act of parsimony more striking—even if less really important—is the way in which the report is produced. That museum matters should be reported in the public press is quite commendable ; the wider the interest taken in such subjects the better. But that the annual report of a national museum should appear in no more dignified and permanent form than a few newspaper paragraphs, is simply ridiculous. Many towns in Great Britain issue reports as separate publications, not unfrequently illustrated. It seems absurd that the government of a country like West Australia cannot do at least as much. It is to be hoped that this false economy and ungenerous conduct may shortly give place to a nobler and more enlightened policy.

Pittsburgh.

Owing to some miscalculation of work or time the labours of the Carnegie museum have been carried on in an incomplete building and amid a small army of workmen. The amount done under these disadvantageous conditions reflects great credit on the staff. Its members are spurred on by the reflection that the institution when complete will take a high place among the museums of the world. In the department of palæontology its position will probably be unique. Although the circumstances have been adverse, field excursions have not been neglected and several successful expeditions have been undertaken. Mr. W. H. Utterback's work in Nebraska has resulted in the acquisition of a valuable series of miocene mammalian remains. Removal has considerably added to routine work. The invertebrate collections have been transferred from a temporary home to the museum without mishap. The new steel cases for the herbarium have proved excellent ; they are practically fire-proof, dust-proof, and insect-proof, and can be fumigated without removal of their contents. The exhibition section of economic botany will be a striking feature of the department. It will include about 300

crude drugs, about 50 spices and condiments ; various grains, cereal by-products, textile fibres, rubber, waxes, nuts. The softer edible fruits will be represented by coloured wax models. In the matter of publications vol. III. of the "Annals" has been completed ; part I of vol. IV. has been issued ; vol. II. of the "Memoirs" has been completed and part I of vol. IV. published.

Sunderland.

A series of local fossils and rock specimens is at present exhibited in the museum ; it includes a specimen of *Platysomus parvus*, described and figured by Agassiz in "Poissons fossiles" (Vol. II., p. 170 ; pl. xviii. ; f. 3). A series of the nests and eggs of British birds is in course of formation. The collections have been enriched by a Sunderland jug, a painting by Frank Wasley, and the head of a Spanish bull. A loan collection of embroideries from the Victoria and Albert museum, London, has proved very successful, and has been visited by over 57,000 persons. During the last quarter there has been a considerable increase in the attendance of teachers and scholars. The newly-labelled natural history collections have proved especially attractive.

Warrington.

The museum has been enriched by a large number of gifts during the year 1906-7. They include two water-colours, by Thomas Letherbrow (a Warrington artist), presented by his widow, and a collection of 353 coleoptera and diptera, given by Mr. Joseph Collins. Over 2,500 specimens of wild flowers (freshly gathered) were exhibited, the bulk of which were collected by a few voluntary workers. A number of Roman antiquities was obtained from Wilderspool by Mr. Thos. May, who has also arranged a collection of 500 fragments of Samian ware in chronological order. Owing to the dispersal of the Bidwell collection the curator has been able to obtain a number of instruments for the production of fire and light. Two paintings were lent to Blackburn in return for two lent previously by the Black-

burn corporation. The attendance for the year was about 21,000. It is gratifying to note that increased use is being made of the museum by school children, both in classes and as individual visitors.

Worcester.

The year 1907 has been one of much activity in the Worcester Museum and Art Gallery. All the table cases have now been provided with the special frames for labels that constitute so marked and special a feature of this museum. The saving in case space thus effected will be readily understood by those who have seen the scheme in operation. In the geological department these frames have been supplemented by 32 coloured sections and maps illustrating the geology of the country and its immediate neighbourhood. Some typical skeletons of reptiles, batrachians and fishes have been purchased for the index collection, and the Board of Education has contributed 50 per cent. towards the cost of these specimens. The educational work for which Worcester is deservedly famous has been well maintained. A large number of specimens has been lent out for purposes of teaching and sketching, and many students have visited the museum. The curator has given a number of lectures to parties of school children in the museum, and a scheme has been made for the curator to give lectures to the whole of the upper standards in the boys' schools, the education committee in return offering an annual grant to the museum. The wild flower and fungus exhibition was kept up in the summer and autumn, the Worcester Naturalists' club helping largely in the matter. Four successful exhibitions were held in the art gallery: a summer exhibition, attended by 7,868 persons; an autumn exhibition, visited by 10,955; a students' exhibition, visited by 3,479; a photographic exhibition, with 2,403 visitors. The committee lent Stanhope Forbes' "Chadding in Mount's Bay" to the Oldham corporation gallery.

General Notes.

THE PREPARATION OF HERBARIUM SPECIMENS.—In *Science* for January 10, Dr. W. A. Kellerman, of the Ohio State University, explains his method of rapid drying by a current of dry, warm air, instead of the slow and cumbrous process of absorption by bibulous paper. The ordinary press is used, and alternating with the dryers are corrugated strawboards, such as are commonly used in packing. These are cut to the usual size and glued back to back, so that they present corrugations running crosswise on both exposed sides. The specimens are placed between these in thin species-sheets, in such a way that the specimen is next the corrugated surface of each board, and is separated from the adjoining specimen by a thick soft sheet to prevent injurious pressure on the corrugated boards. After the press is filled and strapped tight, it is suspended over a stove or other form of heater, so that the rising warm air passes by the corrugations and quickly carries the moisture from the specimens. Thus drying, which formerly took several days and necessitated numerous changes of paper, is now accomplished in from five to ten hours, at a single operation. The rope by which the press is suspended should pass under the straps or cords that secure the press. Thus the weight of the packet itself continues the necessary pressure. If the press is stood on end instead of being thus suspended, it is desirable to have a short spring inserted in each of the straps, so that the slack may be taken up as the drying proceeds. This mode of drying may be used in the field by hanging the press over a small stove or lantern. In this event the press should be hung three feet or more above the heater, and a screen of canvas or thick muslin should be drawn round it so as to direct the warm air. The advantages claimed for this method are, not only a saving of time, but also the avoidance of mould and the more successful retention of the fresh life-like appearance and natural colour. Dr. Kellerman does not consider that this rapid drying results in increased brittleness. But in any case, this can be prevented and the specimens improved by adding a little glycerine to the corrosive sublimate used for poisoning them.

AT HOME.

APPOINTMENT—ROYAL COLLEGE OF SURGEONS.—Mr. Arthur Keith, F.R.C.S., has been appointed conservator of the museum in succession to the late Professor Charles Stewart.

APPOINTMENT.—Mr. C. E. Moss, D.Sc. (Victoria University), has been appointed curator of the Cambridge University herbarium from January 1 to December 31, 1908, the unexpired portion of the period for which R. H. Lock, M.A., who has resigned the post, was appointed.

MANCHESTER MUSEUM.—The title "Curator of Entomology" has been given to Mr. J. Ray Hardy, the senior assistant keeper, in recognition of his long and devoted service to the museum in this department.

BRISTOL ART GALLERY.—A quarter of a century ago, when Mr. Martin Holloway gave 6,300 guineas for "Babylonian Marriage Market," by the late Edwin Long, R.A., he established a record, inasmuch as that was the highest price ever paid at an auction in England for a work by a living artist. It is believed this sum has never been exceeded. How fashion changes, even in the matter of pictures, was shown at Christie's early this month, when many of the paintings by Edwin Long, which were recently on view in the Bristol art gallery, came under the hammer, and the best figure reached was 420 guineas. This was paid for "Pharaoh's Daughter: the Finding of Moses." It is a beautiful specimen of the artist's style, being excellent in composition, in drawing, and in colour. It is satisfactory to know that it will now find a permanent home in the Bristol gallery, as it was purchased on behalf of the committee by Mr. R. Quick, the superintendent.

SOCIETY OF ANTIQUARIES, SCOTLAND.—In the annual report of this Society it was stated that the number of members added during the past year had been 41, and the number of removals from the roll by death and otherwise 36, making a gain of 5, so that the society begins the present year with a total membership of 704, and the ballot at that meeting had added 17, making the number now on the roll 721. The excavation of the Roman military station at Newstead, Melrose, begun in February, 1905, under the supervision of Mr. James Curle, has been continued throughout the year, and has been extraordinarily successful both in regard to the elucidation of the structural remains and the recovery of such a large quantity of interesting and

valuable relics, some of which are of types not previously found in Britain. For the complete investigation of the story of the station in its different periods of occupation, more funds than the society has at present at its disposal will be required ; but, so far as its main features and their details have been disclosed, the results will be made public by means of the Rhind lectures, to be delivered by Mr. Curle, probably in March next. From the report to the Board of Trustees with reference to the National Museum of Antiquities under the charge of the society, it appeared that owing to the very large increase in recent years of the section illustrative of the Roman occupation of Scotland, due to the donations of the collections obtained from the excavations undertaken by the society at the Roman stations of Birrens, Ardoch, Lyne, Camelon, Inchtuthil, Castlecary, and Rough Castle, the whole of the exhibition space in the existing cases had been fully occupied, and two new cases were being provided by the Board of Works for the reception of the Newstead collection. The number of objects of antiquity (exclusive of the Newstead collection) added to the museum during the year has been 300 by donation and 68 by purchase, and the number of volumes added to the library has been 142 by donation and 37 by purchase. Among the donations to the museum which receive special mention are the collection from the Broch of Jarlshof, Sumburg, Shetland, presented by Mr. John Bruce of Sumburg ; a collection of over 100 specimens from Coll and Tiree, described in his book on Coll and Tiree and presented by Mr. Erskine Beveridge ; and a collection of rare brooches and other ornaments from a Viking burial in Oronsay, presented by the Right Hon. Lord Strathcona, K.C.M.G.

CAMBRIDGE UNIVERSITY, FITZWILLIAM MUSEUM.—The syndicate appointed to consider whether it is desirable to amend the regulations relating to the staff of this museum are of opinion that the duties of the director should not be materially increased, and that they should be, in some respects, made more definite, and that the director's attendance should be, partially at all events, at fixed hours, and that there should be an express provision for the keeping of a register of accessions. They further think it would be proper and reasonable that a certain amount of residence within the precincts of the university should be required, as is the case with the director of the observatory and the librarian. The syndicate do not think, in view of the

responsible and onerous duties of the director, that his present stipend (£300 a year) should be diminished. The syndicate think that the board, who elect to the directorship, which at present consists of the members of the syndicate, together with the Disney Professor of Archæology and the Slade Professor of Fine Art, requires some enlargement in view of the possibility of members of this board being candidates for the office, and thereby disqualified from acting; they propose, therefore, the addition of a small number of other *ex officio* members. The syndicate also think that it is very important that an assistant director should be appointed. They think that his duties should be to assist the director, that he should be required to reside for a certain number of weeks in each year, and that it should be arranged that either the director or the assistant director shall be resident within the precincts of the university in every week of the year. The syndicate do not think that the stipend of the assistant director should be less than £100 a year. The syndicate understand that the income of the Fitzwilliam Fund could not conveniently provide this sum in addition to the director's stipend, and they have decided to recommend that it should be paid from the general funds of the University. The syndicate are aware of the difficulty that is found in providing additional stipends, but they think that there are special circumstances in this case which make it very exceptional.

LAING ART GALLERY, NEWCASTLE.—Mr. John Lamb, of the Laing art gallery committee, has presented the picture by Miss Clara Montalba entitled "The Old Watch Tower, Amsterdam." Mr. Lamb has also given a small picture by George Wetherbee, R.I. The fine example by George Clausen, A.R.A., entitled "Stone Pickers," and the clever nature study entitled "An Unprofitable Corner," by John Finnie, have also been added to the gallery collections. To Mrs. T. H. Minshull, daughter of Mr. J. Wigham Richardson, the committee is indebted for the gift of an interesting work by Onorato Carlandi, the Italian artist. This picture was included in the recent exhibition held at the galleries of the Fine Art Society. From the recent exhibition of works by members of the Royal Society of Painter Etchers and Engravers, Sir J. C. Robinson, C.B., F.S.A., has presented the etching, "Coringdon Heath." To the local section of the gallery Mr. Walter S. Corder has presented a box of wood-engraving tools which formerly

belonged to Thomas Bewick. In addition to the tools, Mr. Corder has given two original pencil drawings, made by F. G. Kitton, of "Thomas Bewick's House, 19, West Street, Gateshead," and "Thomas Bewick's Workshop, St. Nicholas Churchyard, Newcastle," together with a folio of records relating to Bewick. Sir Gainsford Bruce, D.C.L., to whom the committee is indebted for his valuable gift of Roman wall drawings, has given a reproduction of the portrait of the late Dr. John Collingwood Bruce, by Rudolf Lehmann. This small portrait has been placed with the Roman wall drawings, executed by Henry Burdon Richardson.

SCOTTISH MONUMENTS.—The full terms of the reference to the Royal Commission on Ancient and Historical Monuments in Scotland is as follows:—To make an inventory of the ancient and historical monuments and constructions connected with or illustrative of the contemporary culture, civilisation, and conditions of life of the people in Scotland from the earliest times to the year 1707, such as—(1) Sepulchral cairns and other burial places; (2) forts, camps, earth-works, brocks, crannogs, and other defensive works either overground or underground; (3) stone circles and standing stones, and rock surfaces with incised or other sculpturings; (4) architectural remains, ecclesiastical and secular, including sculptured or inscribed memorials of pre-Reformation times; (5) architectural or other monuments of post-Reformation times which may seem to the commission desirable to include, and to specify those which seem worthy of preservation.

STUDENTS AND THE WALLACE COLLECTION, LONDON.—A number of complaints have been made by the artists who frequent the Wallace collection for the purpose of taking notes or of copying the pictures. They state that the restrictions under which they have to work are intolerable. The chairs are fastened to the floor, and in the majority of cases are not situated so as to be of use for the purposes of this work. Nothing must be placed on the floor, but students must carry in their hands all sketching materials. Oils are not allowed, and there is an order forbidding the copying of miniatures. Finally, the authorities at the Wallace collection do not follow the practice of most other collections, in allowing to students the use of the gallery free on days when the ordinary public has to pay for admission. These restrictions are the subject of very general complaint among the artists who wish to copy the masterpieces in the collection, and they occasionally

interfere with the comfort of members of the public. The attitude which the authorities at the collection take up in regard to the regulations is that they are more than justified by the special nature of the collection which they hold in trust. Their aim throughout has been to retain in the gallery so far as possible the character of a private house. With this object in view a number of valuable works of art are arranged about the rooms, and it would be impossible to allow the introduction of easels without an entire re-organisation of the existing scheme. Under present conditions the introduction of oils would endanger the collection.

OXFORD HISTORICAL PORTRAITS.—The remarkable wealth of Oxford in portraits of historical celebrities was only revealed in part at the three exhibitions held in that city in 1904 and two following years. According to the "Times" the committee which organised these three exhibitions have decided to publish a complete and exhaustive catalogue raisonné of all the portraits in the possession of the university, the colleges and the municipality. There are probably not far short of 2,000 portraits at Oxford, many of them hidden away in lecture rooms, the residences of the various heads of colleges, and other places quite inaccessible to the ordinary sightseer. A descriptive catalogue of the Oxford portraits should prove of great value for reference and as a contribution to the history of English art, nearly all the portraits being the work of known or unknown artists of English birth or domicile. Permission to examine and describe the portraits has been freely accorded by the several authorities, and the catalogue will be compiled on the lines laid down by Mr. C. F. Bell, of the Ashmolean museum, for the three exhibitions already mentioned. In many instances the archives of the Bodleian, the colleges, and of the town have revealed some very important and interesting particulars—such as the prices paid and the name of the artists—concerning the portraits; whilst the provenance of such portraits as have been acquired by gift will be fully indicated wherever possible. Mrs. R. L. Poole has undertaken the biographical portion and the general editing, whilst the examination and description of the portraits are being done by Mr. W. Roberts who was engaged in the work during the long vacation. The volume will be published by the Clarendon Press, but owing to the great amount of labour involved it is not expected it can appear for some considerable time. The work will be fully indexed, as to both artists and subjects.

The Oxford committee may be congratulated on its first step towards the realization of a scheme which will command universal approval—a series of exhaustive catalogues of portraits in various English public institutions.

VICTORIA AND ALBERT MUSEUM, LONDON. — For a long time it has been impossible to obtain any catalogue of the very large collection of oil paintings of many schools and periods in the galleries of the Victoria and Albert museum, and it has been difficult for even the best-informed writer to say with certainty what master was or was not represented in the great institution at Kensington. But a catalogue that includes the latest additions to the collection has now been prepared, and Part I., which comprises all the paintings by British artists and by foreigners working in Great Britain, can be obtained at the museum book-stall. It is well printed in clear, good-sized type and contains several features that are not to be found in the National gallery or the Tate gallery catalogues. For instance, there is a topographical index, which gives a list of the scenes represented in the principal landscapes in the galleries; an index of portraits; and an index of the authors whose works are illustrated in the collection. But there is no list of the works that belong to each particular bequest or gift, such as those contained in the National and Tate gallery catalogues, and anyone who wishes to know what is contained in the Sheepshanks or other collections must search through the entire volume in order to find out. The number of pictures at Kensington by "painters unknown" is large. There are nearly sixty of these unidentified canvases. On the other hand, it is surprising to find catalogued more than a hundred works in oils by Constable. Most of these, of course, are sketches.

ABROAD.

ALEXANDER MCGREGOR MEMORIAL MUSEUM, KIMBERLEY.—The board of management of this museum have appointed as its first curator Miss Maria Wilman, assistant in the geological department of the South African Museum, Cape Town, since 1898. Miss Wilman was educated at Cape Town and Cambridge, passing the natural science tripos in chemistry, geology, and mineralogy. She was first appointed as assistant to Dr. Corstophine, and succeeded him in charge of the geological section of the South African Museum, working with and under Doctors Sclater,

Peringuey, Broom, etc. Miss Wilman takes up her duties in March, so as to organise the collections now on hand. An instalment of cases of the Dresden type is expected to arrive in June next.

THE LOUVRE.—According to the *Times*, a recent and still unexplained attempt to penetrate into the Apollo gallery from outside has aroused the anxiety of the authorities, who are now negotiating with the police for an arrangement by which the night watchmen are to be accompanied by a well-trained canine police. The role of the latter will depend upon their beat. In the ground-floor rooms the dogs will be big enough to tackle a burglar. Upstairs, where the more delicate collections are placed, fox terriers, pug dogs, and so on will suffice to give the necessary warning.

DOMINION MUSEUM.—The title of the Government museum at Wellington, New Zealand, has been changed from "Colonial Museum" to "Dominion Museum," thus bringing it into line with the recent change in the name of the colony.

OTAGO UNIVERSITY MUSEUM.—In his annual report for 1906-7, Dr. W. B. Benham, curator, reports that in a short time it is hoped to build a new wing to the museum. Three thousand pounds have been publicly subscribed, and the Government has promised a similar amount. The movement originated in the munificent offer of Dr. Hocking to present to the city of Dunedin his valuable library and collection of pictures, etc., relating to the history of Australasia, especially of New Zealand. The new wing will consist of three storeys, one of which will be assigned to the Hocking collection; the others are to contain the collection of New Zealand natural history.

EXPEDITION TO THE KERMADEC ISLANDS.—The enthusiasm of five New Zealand young men has led them to relinquish their several business positions, in order to investigate the natural history of the Kermadec Islands. As the Government steamer visits the group but once yearly, the sojourn is of necessity for twelve months. The expenses of the party have been partly met by grants from the Canterbury Philosophical Institute and the Otago Institute. The collections are to be placed in the hands of local biologists for determination and publication, and representative series will be placed in the New Zealand museums, some of which have provided collecting equipment.

FIELD MUSEUM, CHICAGO.—Dr George A Dorsey, head of the Anthropological Department of this museum, is on a tour round the world making preliminary studies and explorations in the capitals of Europe, in Egypt, India, Malaysia, Australia, the Philippines, the Southern Pacific Islands, China, and Japan. On his return, at least six expeditions will be sent into the field by his museum for the purpose of acquiring collections and pursuing further scientific researches in the regions prospected by Dr Dorsey.

GIFT TO DARMSTADT MUSEUM.—Freiherr von Heyl, of Darmstadt, who brought together an unparalleled selection of seventy-five drawings by Boecklin, has just made a gift of them to the museum at Darmstadt, together with a portrait of the artist by himself, and another oil painting by Boecklin.

MUSEUM FOR FRANKFORT.—The present museum at Frankfort-on-the-Main was founded by Städel, who left the nucleus of a collection, sufficient means to support and enlarge it, and to support a small school of design along with it, and a regulation according to which the management of the establishment was to remain for ever independent of the municipal government. It is, by visitors and foreigners generally, looked upon as a municipal institution, whereas it is a private establishment, bequeathed to the town, with certain restrictions. These have always stood in the way of improvement to a certain extent, as the city, for example, was not in a position to vote means for the museum if it was not to have any voice as to the disposal of these means. The following solution has now been proposed. A new building for modern art, including modern sculpture, which is altogether lacking at the Städel, is to be erected and established by the town, on the grounds of the old museum, and—in the interest of the visiting public—connected with the old Städel museum building by a passage. The modern museum is to be theoretically conducted by a distinct committee or staff, which is practically to be identical with that which runs the Städel museum. Thus the integrity of the latter may be preserved, but it will be an easy matter to reserve for it hereafter the province of old art—say, prior to 1850—whereas all the new work will be the care of the new museum—and there will be no danger of the two establishments not working hand in hand. The Pfungst bequest furnishes ample means to start the modern museum with.

BEQUESTS TO THE LOUVRE, PARIS.—The portrait of "Lady Mulgrave," by Gainsborough, has just been bequeathed, with many other works, to the Louvre in Paris. The death is announced of M. Camille Groult, one of the best-known collectors of Paris, and it is stated on good authority that he has bequeathed the whole of his large and varied collection to the museum of the Louvre. M. Groult concentrated his attention chiefly on the French and English schools of the eighteenth and early nineteenth centuries, and had an especial admiration—untempered, alas! by discretion or connoisseurship—for Turner. The vast collection with which it has now become necessary to deal contains many fine and interesting specimens of French eighteenth century art, and in the possession of these, at any rate, the Louvre will be the richer. Some of the paintings of the early English school are of doubtful authenticity, and how to dispose of these will be an exceedingly difficult task, which may greatly perplex the keeper of the paintings and the advisory committee of the National Museum of France. It is the duty of those who direct the destinies of great national establishments, to remember that museums exist primarily for the purposes of artistic and æsthetic education, and that it is assuming a great, indeed, an excessive, responsibility, to exhibit as presumably genuine well recognised imitations of a great master, even though through so questionable a concession important benefits should ultimately accrue to the establishment making it. Public exhibition in a national collection confers an *imprimatur*, the effect of which on the public no reservations can wholly counteract.

OBITUARY.—We regret to learn of the death of Mr. Morris K. Jesup, President of the American Museum of Natural History, which took place on January 22nd. He has bequeathed £200,000 to that museum to be invested, and the income to be applied "to the general purposes of the museum, other than alterations, additions, repairs or erection of buildings, the purchase of land, or the payment of salaries, or for labour or for services of any kind ordinarily considered under the item of maintenance." As further explained in Mr. Jesup's will, the money is chiefly to serve as a purchase fund for specimens.

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Museums of Elementary and Higher Grade Schools.

BY HERBERT BOLTON, F.R.S.E.

[Read at the Dundee Conference, 1907.]

DURING the last six or eight years the writer's attention has been drawn repeatedly to the museum collections which are being brought together and fostered in elementary and secondary schools, and the results of an examination of them has shown that, in almost every case, they are likely to prove a source of danger to the modern museum idea, and that they are inculcating a very low standard. The basis of the smaller school museums I have seen consisted of a few cards upon which were mounted a series of specimens showing the various stages in the manufacture of such things as a lead pencil, a knife and fork, pens, pocket-knife, &c. With these, were associated a few stones, fossils, seeds, fruits, examples of knitting, dolls' houses, models by children in plasticine and a general assemblage of odd and ends it would be difficult to describe. In only one instance have I seen anything approaching a well selected and well balanced series of specimens, and in this case I found the satisfactory condition of the school museum was due to the presence of a headmaster of broad sympathies and wide culture, who was specially interested in the school museum.

The museum of an elementary school can naturally have no parallel to the more public institution, but neither should it foster the idea that by "museum" is meant any assemblage of odd and ends, in any sort of condition. Yet we believe that, as the result very largely of the object

lesson, most schools have one or more glazed cupboards in which are displayed to the scholars, day by day, such a jumble of material as we have enumerated and to which the name of museum is applied. The term museum therefore becomes associated in their minds with something which in after years will be regarded with, at the best, good humoured toleration and more likely with contempt. The lowly ideal of what a museum is, will in most cases, be carried to mature years and will hardly result in the public and more true museum being regarded as a public benefit, or as deserving of much sympathy or help.

We think that it is time to consider what effect the school museum, as now maintained, is likely to have upon the mind of the scholar. Is it exerting a wise or a good influence? Is it not rather giving a false and totally inaccurate idea of museums generally and hiding from our youth the true function of these institutions?

As we have indicated the school museum is closely bound up with what are called object lessons. It is largely also because of these lessons that young people are being brought in increasing numbers to public museums, either to receive a demonstration from some member of the staff or to study collections under the guidance of their teacher. It may be thought that since children visit the public museum such visits are likely to counteract any false impressions gained from the school collections; we think not. Visits to public museums only occur at long intervals, whilst the school museum is before the eyes of the children every day. If school museums are repeating all the old evils, and if children are growing up with wrong impressions, what is the remedy?

We venture to suggest that the scope of the school museum should be confined within narrower limits, and have a more definite aim. If the material composing it is of any value in the school curriculum it will have a much greater value, were object lesson and museum contents arranged on well defined lines to a common end.

We believe that all objects of an industrial character, such as the specimens illustrating the various stages of manufacture of common articles of every-day use, ought to be separated from all others and placed, if at all possible, in one cabinet, whilst objects of natural history should be kept within rigorous bounds and be limited to those examples well within the cognizance of the scholars. For example, we should consider that a collection of rock specimens, which included the common building and other stones met with in the locality or mentioned in the school books, would be ample for all purposes, and that none others should be admitted. That examples of minerals would be more useful if the collection was restricted to the common ores of iron, lead, tin, copper, &c., which enter most largely into industrial arts and crafts. That botany would be best served by a small collection of specimens obtained from the immediate neighbourhood and that a collection of local shells, insects and a few typical birds would be in the main sufficient for all teaching purposes. But all these collections, be they large or small, ought to be maintained in the best possible order, and children should be taught that every specimen has an educative value, whether taken singly or in relation to others. If this were done we think it would follow that the impressions received from the school museum would lead to a fuller realisation of the utility and importance of the public institution and to a greater use of the latter in adult years. The museum of the secondary school is usually of a somewhat ambitious character. All those we have seen attempt to deal somewhat with the science of geology, but the zoology and botanical specimens are usually a very odd assortment indeed. These museums could be so developed as to help the teachers materially in their task of imparting the first principles of natural science, a subject which is one of the most important in these schools. The secondary school museum ought, we think, to contain a small mineral series, illustrating the chief rock forming minerals, examples of the chief ores and minerals useful to man, a small

but well selected series of igneous, metamorphic and sedimentary rocks and a few examples of rocks to show disintegration of one rock material and the building up of others from its residues. Half-a-dozen fossils from each important formation would we think, be enough to illustrate normal class teaching and the addition of any fossils or other material not required for this purpose ought to be discouraged.

A small local collection might be introduced with advantage, both to familiarise students with local conditions, and to serve as the basis of special lessons. Such a section would need careful watching, lest it become too large and unwieldy. Type series of botanical and zoological material drawn up on broad lines ought also to take the place of examples of tropical fruits, sugar-cane, bamboo, fragmentary insects and jumbled masses of birds' nests and eggs, and, where space allowed, small representative series of the chief local shells, insects and a few birds could be added, as indicative of the local fauna. We do not think that a school museum such as we have outlined need be at all costly, the first cost would be almost the only cost, and it would have a direct relation to the class teaching, and thus incidentally demonstrate the function and usefulness of the larger public institution. A small well ordered collection would also be a means of training children how to use a museum, a thing which certainly needs to be taught.

School museums might with advantage be under the eye of the local museum curator, not with regard to its arrangement—the curator has more than enough to do with his own—but in regard to its growth, maintenance in good order and usefulness, for he could often render efficient service by a timely word of advice, by the gift of suitable duplicates and by identifying specimens.

The facts with which we have to deal at present are these: school museums exist, they perpetuate old evils, they are non-efficient and likely to be productive of harm because they foster a low ideal of the usefulness and character which all museums ought to have.

Drying Plants without Pressure.

BY G. A. DUNLOP.

THE following notes on preparing plants for exhibition have arisen from a number of experiments tried in connection with the wild flower table at the Warrington municipal museum.

During the spring and summer the flower table if kept up to a certain standard, attracts every visitor by the natural wealth of colour of the specimens. But as the season advances into early winter this colour attraction gradually decreases and finally disappears. Nevertheless, we have, for the last two years, continued the exhibition of fruit and seed forms through the winter. At first no attempt was made to prepare the specimens, the fruits being simply placed in bottles without water and allowed to dry as they stood. The vivid contrast between the attractiveness of the summer and winter displays—between the beautiful varying tints of fresh green leaves dashed with the red, white, yellow, blue or crimson of the flowers on the one hand, and the dry, withered, stubble-like appearance of the seed forms on the other—was conspicuous, and the necessity for some improvement forced itself upon us. It was felt that if the general public was to be attracted during the winter it must be done by beautiful and interesting specimens as in the summer. Leaving out of account preservation by pressure, a method only suited for the herbarium, there are two methods at the curator's command—the dry and the wet—but the latter is not applicable to exhibits of such a transitory nature as wild flower table specimens.

In drying plants without pressure we have tried two media, with a certain amount of success, namely, silver sand and boxwood sawdust. During the summer and autumn of 1906, as the flowers passed into the fruiting and seed stages, selected specimens were placed in silver sand to dry in readiness for the winter display. The process is

very simple, but for successful results it requires the greatest care and attention to the smallest details. The sand used is that sold by seedsmen as "silver sand," and may be purchased for about 3s. per cwt. Usually it requires sifting through a fine wire kitchen strainer before it is fine enough for use. Coarse sand injures the delicate organs of the plant and should be avoided. It is also desirable that the sand be well baked to destroy bacteria and other lurking organisms. The plants should be placed in the box according to the manner of growth. If the plant is procumbent in habit then the natural attitude should be followed; if it has an erect growth then it should be placed erect, and so on. If an erect growing plant be laid flat or sideways in the box the result will certainly not be satisfactory, as its own weight will crush the under parts. It is best to put only one specimen in each box. It will dry better so and will be less liable to be damaged in being taken out of the sand. Too much care and patience cannot be exercised in placing each specimen. The plant being arranged in its natural attitude the sand should be put in gradually and in small quantities, precaution being taken against unequal pressure reaching any part. After the plant has been fixed so that it will stand without the support of the hand, allow the sand to fall slowly on the point of the trowel, splashing thence on to the plant in a sort of fine spray. In this way the sand finds its way into all the crevices and falls round such delicate organs as bracts and fruit-stalks without injuring them. The box should now be placed where a current of air reaches it. Artificial heat should not be used as it injures the colour of the flowers and gives the foliage a hard and brittle appearance. If the plant be sticky the gum, resin or honey should be removed by hot water or methylated spirits. Plants with woody tissues must first be dipped into boiling water to kill them or they will remain fresh in the sand for weeks. The specimens will probably be dry in ten days or so, but they receive no harm by being left longer in the sand. In taking the plants out the sand should be allowed to run away slowly, care being taken to avoid

avalanches. They should then immediately be carefully dusted with a small camel-hair brush.

By this method very good results have been obtained ; but during 1907 even better results were secured by the use of boxwood sawdust, which we first tried in preparing a large number of specimens for a scheme illustrating the story of the flowering plant. This medium is used extensively by goldsmiths for drying gold and silver after washing. Perhaps one of the reasons why this gives better results is because it is more absorbent than sand. It certainly dries the specimens more quickly.

The methods of preparation are the same as with the sand except that instead of the dust being allowed to fall in a spray it is placed carefully round the specimen with a spoon. It is necessary to make as little disturbance as possible with the sawdust on account of its poisonous nature. Mr. Herbert Stone, the author of "The Timbers of Commerce," writing to us says, "I have been using it and find it effective but suffocating. This fine dust is poisonous at times, if derived from unsound and worm-eaten South African boxwood, and one cannot say the origin of the sawdust when purchased from a dealer." In the "Quarterly Journal of the Institute of Commercial Research in the Tropics," for January, 1906, Prof. Harvey Gibson, of Liverpool University, publishes an article "On the occurrence of a poisonous alkaloid in West African boxwood," in which the poisonous action of the sawdust is dealt with in extenso. He says that although the West African and South African boxwoods are derived from different botanical sources the physiological action of each is the same. Knowing the danger of careless use of this sawdust I usually tie a handkerchief round my mouth and nostrils when using it, and the only inconvenience I have experienced is a slight irritation caused by the fine dust getting under the eyelids.

The results of drying in this medium have been so successful that we have discarded the sand altogether. The natural colours of the flowers, even the delicate whites

are excellently preserved, and the green of the leaves also. One very gratifying result is the preservation of the natural texture of the leaves, a feature which is not attainable by the sand method.

Of course, equally good results are not obtainable with all kinds of plants. The process, for instance, that will convert succulent plants into even respectable dried specimens has yet to be found. Much also depends upon the age of the individual plant, but a little experience will teach the operator at what stage in the growth of each species the best results are attainable. For instance, if one of the veronicas is wanted just when the fruit is ripe, it is possible to get this stage with green leaves, and the fruit in good colour, but if the plant is wanted with the capsule open it is possible that the green may have faded to dingy brown in the meantime.

In using the same process for the preparation of flowering specimens for permanent exhibition in the museum, the great difficulty has naturally lain in securing the retention of the natural colour of the foliage. No matter how beautiful the leaves may look when newly dried, after a few months exposure to light, especially to a direct light, they become more or less faded. I have during the past summer tried a number of experiments to counteract this by staining and painting, but without good results. The nearest approach to success was obtained by applying aniline dye with a camel-hair brush, but the leaves dried in unnatural shapes that were very unsightly. Some successful method may yet be found, but at present we can only meet this difficulty by renewing the "wilted" specimens periodically, say every two years.

British Grown Trees in the Natural History Museum.

THE new exhibit illustrative of British grown trees is now complete after some years of preparation. The general arrangement of the cases, occupying one of the bays in the central hall, is as shown in the photograph reproduced here. In all thirty-nine trees, including ten conifers, have been selected for illustration. These are portrayed by large photographs, in permanent carbon, from plates measuring 20in. by 16in. Deciduous trees are shown from precisely the same point of view, in their winter and summer aspect. A nearer view of the bole of each is given, showing the detail of the bark. Further illustrations



include photographs and water-colour drawings of flowering shoots, wax models of foliage, dried specimens of winter twigs fruit and seeds, and sections of branches showing annual rings of growth. A brief account, in popular language, descriptive of the general character and habit, accompanies each tree. The exhibit is altogether a striking and attractive one, and has already proved to be of very

considerable service to the increasing number of those whose interest has been awakened in this and kindred subjects. All the photographs in the exhibit are the work of Mr. Henry Irving, of Horley, Surrey, who has spared neither pains nor expense with the object of providing such a series and should be of the utmost practical service for botanical illustration in museums and schools. Mr. Irving will be glad to furnish full particulars of the series, and will send a selection, on approval, to any curator of a museum, making application to that end. The following is a list of the trees exhibited:—

Tree.	20 in. by 16 in. 10 in. by 8 in.			Tree.	20 in by 16 in. 10 in. by 8 in		
	In Summer.	In Winter.	Bole.		In Summer.	In Winter.	Bole.
Oak		"	"	Rowan	"	"	"
Beech		"	"	White Beam	"	"	"
Birch		"	"	Wild Service	"	"	"
Alder		"	"	Hawthorn	"	"	"
Hornbeam		"	"	Elder	"	"	"
Lime		"	"	Plane	"	"	"
Wych Elm		"	"	Walnut	"	"	"
Common Elm		"	"	Horse Chestnut	"	"	"
Ash		"	"	Sweet Chestnut	"	"	"
Field Maple		"	"	Larch	"	"	"
Sycamore		"	"	Yew	"	"	"
White Poplar		"	"	Scotch Pine	"	"	"
Black Poplar		"	"	Spruce	"	"	"
Lombardy Poplar		"	"	Silver Fir	"	"	"
Aspen		"	"	Douglas Fir	"	"	"
White Willow		"	"	Cedar of Lebanon	"	"	"
Holly		"	"	Deodar	"	"	"
Wild Cherry		"	"	Roman Cypress	"	"	"
Apple		"	"				

In addition to the above are Platinum Prints, 10 in. by 8 in., of—

Box growing as a bush :

Atlantic Cedar.

Box growing as a tree :

Books.

FROM RANGE TO SEA: A BIRD-LOVER'S WAYS, by Charles Barrett.
Melbourne, T. C. Lothian. 1907. 1/-.

The pictures in this bird lover's book are reproduced from photographs taken by A. H. E. Mattingley, who appears to be the Australian Kearton, while Mr Barrett brings to the literary part of the work a poetical imagery that clothes his observations with a specially attractive form. It is just a harmonious soliloquy amongst the birds, by one attuned to nature's subtle moods, scorning the dry drudgery of mere terminology, for he tells us that "the long unlovely names of the scientist cling like a curse to some of the most delicately beautiful objects on earth." It is only a booklet of 60 pages yet contains a good deal of valuable material acquired by direct observation. "The only way to study bird-life is to dwell among the feathered folk themselves. The theorising of the cabinet naturalist may have its use; but bundles of soiled feathers, without life or form, are sorry material from which to write the biographies of our 'brothers of the air'" In the Lyre-bird Gully he was able to observe closely the habits of this interesting and disappearing bird, the introduced fox proving a deadly enemy to it. On one island he visited he calculated that there were no less than 50,000 petrels, whose breeding habits he is able to describe fully from this abundant material.

Though discursive, the book is full of charm, while the illustrations are invaluable for their life-like adherence to natural habits. This little book will of course appeal most directly to antipodean naturalists, yet it has a special value for museum curators who wish to give a real vivid representation of the objects they exhibit. We have never seen an illustration that appealed to us so forcibly for museum grouping as the ring-tailed opossum climbing to his nest, and the companion one where he is seated in it. Almost equally good is the rufous fantail on its nest, and

many others of the 35 illustrations that adorn the book. Taxidermy founded on these would not only teach natural history with a direct force to the man in the street, but would attract him to nature's ways with irresistible enthusiasm.

THE USEFUL BIRDS OF SOUTHERN AUSTRALIA, WITH NOTES ON OTHER BIRDS, by Robert Hall. Melbourne, T. C. Lothian. 1907. 3/6.

This is a systematic guide to the useful birds of the district of Australia named on the title page, that will be serviceable to every budding ornithologist in the colony, as well as to those charged with its economic advancement. The classification is based mainly on the food of the birds. Not only is a recognisable scientific description given, but the habits and life history of each bird are set forth with much literary charm, that will attract and instruct those whose previous acquaintance with bird life is not very profound. The influence of the birds on agriculture and other phases of life is logically brought out from close observation of them. At the end of the book there is an account of birds introduced from other countries, and it is easy to see that the homely pests of our own land have not improved their ways by the change of climate and country they have undergone. Many of the illustrations show the adults, nests and young in their natural situations, adding greatly to the reality and truthfulness of their forms and attitudes. We would like to point out to the author that the "figure of a bird, showing the principal external characters" would be greatly improved if produced on a larger scale, which could easily have been done, for it at present occupies less than half the plate, the lines and designations being too crowded to be readily made out by a beginner.

Museum Publications.

Australia.

RECORDS OF THE AUSTRALIAN MUSEUM. Vol. VI., No. 5. July, 1907, p. 317-423. 23 plates.

Three of the six papers forming this number have more than usual interest. The first is one by R. Etheridge, Junr., describing a series of new species from the lower cretaceous or "Rolling Downs" formation. The fossils consist of a new species of *Spirulæa*, nine new species and one new genus of pelecypoda, and four new species of gastropoda. The new genus, *Pachydomella* includes a single species, which occurs in countless numbers and marks a well defined horizon. Unfortunately no complete generic description can be given, owing to the condition of the fossils, so that the genus will necessarily remain somewhat vague and of little value to palæontologists until the finding of better specimens enables the description to be completed. Mr. W. J. Rainbow contributes a series of notes on the architecture, nesting habits and life histories of certain Australian spiders belonging to the family *Argiopidae* (*Epeiridae* Auct). One item of interest is that the webs of certain of the *Nephila* are sufficiently strong to retain small birds accidentally ensnared, and that the silk of these and congeneric spiders is employed by some birds to line their nests.

The publication of the results of the deep sea investigations undertaken in the Tasman Sea, by means of a grant from the Royal Society of London, are continued in two articles, one by Mr. Allan R. McCulloch, who describes the fish and crustacea and a second by Charles Hedley, who deals with the mollusca. The fish include a new form of *Macrourus*, and two species of *Coelorhynchus*, one new to science. The trawl also captured three species of crustacea, and an abundance of echinoderms, there being no less than 100 living examples of one species. Trawling was carried on at a depth of 800 fathoms, at a point thirty

five miles due east of Sydney. The bottom consisted of green ooze, yielding few shells, foraminifera and a living tubicolous annelid. About sixty different kinds of shells were collected, one-third belong to new species, thirteen of which are described and figured.

The main interest of the present issue of the *Records* centres in a memoir by Mr. Walter E. Roth, upon the burial ceremonies and disposal of the dead amongst various Australian tribes. In all cases, it would seem that an endeavour is made to propitiate the departed spirit, either by ceremonial dances, the provision of food, or by an act of vengeance if there is reason to believe that death has been brought about by an enemy. When final satisfaction has been given to the dead, then the body is disposed of according to the customs of the tribe; in some cases by being eaten in whole or part, in others by cremation, &c. In all cases a widow becomes the property of one of her late husband's group, or blood brothers. White and red are the usual mourning colours, the former being more emblematic of grief, and the latter of a desire to avenge the death.

Mr. C. Anderson contributes a series of notes upon the crystal forms of cassiterite, cerussite, and other minerals.

Basle.

The annual report of the art museum for 1906, a quarto brochure of 72 pages, illustrated by a plate and several cuts, gives, as in past years, an account of the collections, with a supplement on a subject of interest in the history of art. With reference to the former section the erection of the new buildings has been postponed in order that the plans may be revised. The original plans have been devised on too large a scale. Both the collections and library have received considerable additions; to the former 9 oil paintings and 12 water colours have been added. The attendance is considered satisfactory; over 2,000 persons visited the gallery of engravings alone. In the picture gallery 26 pictures have been copied and extensive use has been made of the library. The re-arrangement of the pictures has

proved a decided success. The appendix to the report consists of a historical account of the Amerbach family, beginning with John Amerbach, the printer (d-1514), and of the art collection associated with their name. To this is added a series of inventories of the collection in chronological order, beginning with 1578.

Belfast.

Quarterly notes VII. and VIII. contain simple articles on questions of popular interest connected with the museum. The former begins with a sketch of Dr. John Moore, a Belfast surgeon and artist of great repute, and a brief description of some of his pictures exhibited in the art gallery. An illustrated article deals fully with tinder boxes. There is a short article on termites (illustrated), in reference to two objects (a pamphlet and a knife-board) damaged by these insects and exhibited in the museum. A series exhibited to illustrate a frog's life is described; the description deals with the amphibian's skin, respiration, circulation, sense organs, food, locomotion, hibernation, development and usefulness, and also gives the main points of difference between frogs and toads. A short list of books referring to the subjects of the chief articles is appended. No. VIII. has an article describing Mr. W. H. Patterson's donation of 207 shell cameos. The article is illustrated by two plates figuring nine cameos in the collection. A primitive spinning wheel from Teneriffe is figured and described, also several metal objects (Celtic) from the Lismacroghera Crannog. There is also a brief illustrated article on Irish "methers." As usual, a short bibliography is appended.

Buenos Ayres.

ANALES DEL MUSEO NACIONAL DE BUENOS AIRES, Ser. 3, Vol. 7, pp. 611, 18 pls. 1907.

The present volume of the above-mentioned serial is occupied entirely by one memoir by Dr. H. von Ihering, on "the fossil mollusca of the tertiary and upper cretaceous of Argentina." It is a work which will maintain the high reputation this museum already enjoys for scientific work.

Ceylon.

SPOLIA ZEYLANICA, issued by the Colombo Museum, Ceylon. Vol. V., Pt. 17. Nov., 1907.

Mr. F. Ernest Green has a short but interesting account of a newly discovered parasitic hymenopteron of the genus *Apanteles*, which serves to keep in the check the huge caterpillars of the "Death's Head" moth which occur on the "dadap" tree. Fully seventy-five per cent. of the caterpillars are destroyed by the larva of this minute ichneumon. The larvæ make a remarkable compound cocoon, composed of separate cocoons bound together by loose woolly matter, and usually left attached to the leaves of the tree. Mr. P. Cameron supplies a full description of the new species. A report by A. Willey, F.R.S., upon the window-pane oysters (*Placuna*) in the back-waters of the Eastern Province, details the results of a systematic examination of the oyster beds in 1907, the previous examination having been made by Mr. James Hornell two years ago. Mr. Willey has been able to confirm and extend Hornell's observations upon pearl inducing parasites, by the finding of numerous examples of the endogenous formation of a new generation of larva within the parent cyst. Further he has found that the multiple formation of such larvæ is a common phenomenon. Sketches are given of the cysts found in various *Placunæ* which prove the truth of these observations.

Hull.

Publication No. 50 is a report on the Hull museums for 1907. It is a pleasing record of wide and varied activity, The Albion Street museum is making steady progress; the department of antiquities has been enriched by the addition of the Hunmanby relics and a number of other British remains. The collections of Roman and Anglo-Saxon antiquities have now reached considerable dimensions. One of the most interesting of recent additions is the Patrington sun-dial, described by Poulson in his "History of Holderness" as a Roman altar. Steady progress appears to have been made in all departments. The lepi-

diptera are particularly numerous, and include the Dobree collection of 5,000 specimens (650 species) and the Russell collection of 2,500 specimens of British butterflies and moths. The aquarium and vivarium are in a healthy condition and have proved very attractive. Between April and September an average of about 50 wild flowers was exhibited (with labels) each week. The curator has helped in the excavation of the Bielbecks deposit, for which a grant was given by the British Association. The work of restoration in Wilberforce House has been suspended in consequence of want of funds. It is sincerely to be hoped that the next annual report will record the completion—or at least the resumption—of this important work. The report contains many other items of interest which have already been noticed in the monthly publications of the museum.

Keighley.

Mr. Mosley is able to report that the progress of the Keighley museum during 1907 has exceeded that of any previous year of its existence. The number of books and specimens received was 11,015; this far exceeds all previous records. Mr. C. Croft has given his entire collection of fossils. An index collection has been formed and has been placed in four permanent wall cases. The monthly table and the wild flowers table have been kept well furnished with specimens and notes, and notes have been supplied to all borough teachers who have applied for them. After a careful consideration of the question of dealing with duplicates, it was resolved to place them in the elementary schools, and accordingly 108 cases of birds and 26 of butterflies and moths have been thus used. The curator hopes during the present year to place nature-study cases with notes in all borough schools where teachers desire them. A second children's nature-study competition was held in July, and a second nature-study session was started on September 6th. Both were fully successful and highly appreciated. The attendance has been decidedly good; it has been estimated at between 16,000 and 20,000.

Amongst other visitors was Professor Miall, who expressed high approval of the condition and work of the museum. All who know Mr. Mosley's splendid educational museum work, and many of our readers do, will fully agree with Professor Miall in his commendation.

Madras.

Much work has been done in the Government museum, especially in the department of anthropology. Tours have been made by the director and Mr. Rangachari to obtain ethnographic information and anthropometric measurements. In July, 1906, the directors' work "Ethnographic notes in Southern India" was issued, and the edition was exhausted by the end of the year. His book on "Castes and Tribes of Southern India" will be issued in connection with the Ethnographic Survey. In the course of the present report occurs a remark on "Hindu and Christian 'talis' (marriage badges), both of which were worn by a Christian convert. The former bears the sign of the cross and the latter phallic emblems." It is to be hoped that a "lapsus calami" has been made. Readers of the *Museums Journal* will read with deep regret that a number of coins, mostly gold, have been stolen from the museum. Amongst these is a series of Roman Imperial solidi and denarii, ranging from Claudius to Commodus. At the time of the publication of the report neither coins nor thief had been traced. The completion of the aquarium building on the seashore has been delayed in consequence of additions, such as cisterns, compressed air apparatus, &c. The director would be grateful for information concerning the markings on the common squirrel of the plains. The attendance shows a marked falling off on that of the previous year.

Milwaukee.

The director begins the 25th annual report (1906-7) by a short retrospect tracing the growth and development of the museum. He also announces the approaching completion of a historical department, to which will be attached

all anthropological specimens. It is gratifying to learn that increased use is made of the museum by the public. Each succeeding year sees an increase in the attendance and in the interest displayed by the visitors. The collections have received a fair number of accessions. In the case of the ornithological collection these have consisted in large part of birds that have died of cold or have been killed by flying against wires or windows. A citizen has bequeathed a collection of objects—many of them of value—on condition that they are exhibited in a separate case or cases with a specified inscription. The museum authorities have wisely refused to accept the collection unless this proviso is withdrawn. The director and a member of his staff have given lectures to a few classes and at the college, but the lecturer employed by the school board has been withdrawn. It is hoped that a scheme may be devised in which the board can co-operate, such as has been successfully carried out in Worcester. The director, while expressing general satisfaction with the development of the institution, has to complain of a tendency to diffuseness in the collections and a want of steadiness in keeping the primary aim of the museum in sight. That aim is the illustration of the natural history and resources of Milwaukee and of Wisconsin. There is a truly American breadth in adding as a secondary region “the United States and the remainder of our planet,” but one regrets that “solar system” was not added. It would have rendered the inclusion of meteorites legitimate. The report is illustrated by ten excellent plates figuring specimens or groups in the museum.

Paisley.

The Committee in its report for 1906-7 points out that the progress and development of the museum are being seriously hampered by the want of floor accommodation and suitable cases. Four upright glazed cases have fortunately been obtained, but much more will have to be done in this direction before the collections can be arranged

and classified. Among the donations are—a collection of objects from the east coast of Africa (collected and presented by W. Carlile Fraser), twenty mammals (presented by E. H. Bostock of the Scottish zoological gardens), and an oil painting by James E. Christie : “ the introduction of Christianity into Britain ” (Royal Academy gold medal, 1877). Four cases (containing old china, glass, bronzes and tapestry) and ten pictures have been lent by the Board of Education. The Committee have allowed the use of their premises to the Scottish photographic federation and for a school children’s drawing competition. The attendance during the year was 129,846 against 105,973 in the previous year.

South Africa.

RECORDS OF THE ALBANY MUSEUM. Vol. II., Part II. Dec., 1907.

Dr. Schönland contributes a second instalment of his list of flowering plants found in the districts of Albany and Bathurst, and a paper on new and little known species belonging to the genera *Aloe*, *Gasteria*, *Crassula*, *Cotyledon*, and *Kalanchoe*. Twenty-three species are described with considerable detail, no less than fifteen being new to science. A short but useful paper by Dr. Broom shows the various geological horizons of the fossil vertebrates of the famous Karoo system of South Africa. The reptilian series is especially noteworthy largely owing to the labours of Dr. Broom. If, as the author suggests, many hundreds of new reptilian forms remain to be discovered in the deposits of South Africa, it is very possible that we shall have to look to that quarter of the globe for the elucidation of many vexed questions of reptilian development and relationships which are still unanswered. Dr. Schwarz describes the andalusite schist of the George division in the south-west of Cape Colony, and a sapphire-cyanite rock from the Jagersfontein mine, whilst short papers by Messrs. Distant, Gough and Duerden contain descriptions of new species of *Cicadidæ*, *Atractaspis* and *Parazoanthus*.

Sunderland.

A special collection of crystals has been arranged in the Sunderland museum to illustrate a university extension course of lectures on "Light and Sight." On December 30th, 1907, an exhibition was opened in the art gallery to illustrate the development and growth of the art of engraving on wood and metal. Ninety-five frames placed in chronological order on screens shewed examples of wood-cut line-engraving, etching, mezzotint and stipple, during the period from the 15th to the 19th century. Works of many of the most illustrious masters of engraving were exhibited. On the first screen was a list of books in the library dealing with the art and history of engraving; explanatory labels, type-written, are placed on the screens at the head of each section. The exhibition will be continued till near the end of March. The report contains an illustration and description of the medal struck in commemoration of a heroic deed of Jack Crawford, a Sunderland sailor. At the battle of Camperdown, when the mast to which the admiral's flag was attached was shattered by the enemy's fire, Crawford climbed up with the flag and nailed it to the top-gallant masthead. The medal was presented to Crawford in March, 1798 (about six months after the battle), and after many vicissitudes was presented to the Sunderland museum by the Earl of Camperdown, grandson of the great admiral.

General Notes.

MUSEUMS ASSOCIATION.—The next annual Conference will be held in Ipswich in the week beginning July 13th, 1908, under the presidency of Dr. Jonathan Hutchinson, F.R.S. The Local secretary is Mr. Frank Woolnough, Museum, Ipswich. Full particulars of the arrangements will be sent to each member early in April.

AT HOME.

APPOINTMENT.—Mr. Frank Lambert, B.A., of Christ's College, Cambridge, has been appointed museum clerk in the Guildhall museum, London.

APPOINTMENT.—Mr. Arthur Keith, F.R.C.S., of the Royal College of Surgeons, to the office of conservator of the museum, rendered vacant by the death of Professor Charles Stewart.

PEEBLES, CHAMBERS' INSTITUTE MUSEUM.—This collection, mainly of local antiquities and specimens illustrating the natural history of the county, has lately been placed under the care of Mr. William Sanderson, editor of the *Border Magazine* and well known on his own side of the border by his pen-name "Tweedside Laddie."

CAMBRIDGE, FITZWILLIAM MUSEUM.—Congregation has decided that the assistant-director, to whose proposed appointment we have previously referred, is to be appointed by the syndicate in consultation with the director, for a term not exceeding five years, and at a stipend of £100 a year, to be charged to the University chest. He will be expected to attend at the museum at least 200 hours on week days in the year, and will be required to reside within the precincts of the university for 20 weeks in each year.

BRITISH MUSEUM.—A petition from the trustees stating that the establishment was necessarily attended with expenses far beyond the annual produce of the funds at their disposal, and expressing the hope that the House would grant them further support, was on February 17th presented before the House of Commons by Mr. Charles P. Trevelyan.

ST. ANDREW'S UNIVERSITY.—Mrs. Bell Pettigrew, widow of the late professor of medicine and anatomy, has offered to the university a sum of £6,000 for the erection of a new natural history museum. It is stated that the museum is to be built in connection with the proposed extension of the present botanic gardens, and there will be attached to it a lecture-room, a practical class-room, and rooms for curator and workers.

OXFORD UNIVERSITY, FORESTRY SCHOOL.—To the building already erected in the Parks Road, St. John's college is about to add accommodation for the forest branch, consisting of a lecture-room, a class-room, a museum, a library and a professor's room.

LOCAL MUSEUM CONFERENCE.—On the invitation of the committee of the Preston public library and museum, a museum conference will be held at the Harris Museum, Preston, on the afternoon of Saturday, April 11th. Papers will be read by Dr. W. E. Hoyle and Mr. W. B. Barton.

CHESTER MUSEUM.—Several important additions have been made to this museum. His Grace the Duke of Westminster has presented specimens of the Black Rhinoceros (*Rhinoceros bicornis*) and eland (*Taurotragus oryx*), also a fine skull of the African elephant (*Elephas africanus*), all the animals being shot during his tour in Africa. Mrs. Park Yates, of Ince Hall, near Chester, has presented an interesting collection of Indian and other game-birds, also a fine male black grouse (*Lyrurus telrix*), shot on the Ince estate in the year 1885. Additions to the local collections include a specimen of the lesser shrew (*Sorex pygmaeus*), also a life history group of the green woodpecker (*Gecinns viridis*); the specimens and material collected by the curator (Mr. A. Newstead); aquaria containing animals representative of pond life, and an observatory hive containing a colony of living specimens of the hive-bee have been placed on view. About 1,611 specimens of native plants have also been exhibited, chiefly contributed by senior and junior members of the natural science society, and students attending the technical day and art schools. It is proposed to continue these exhibitions. A course of 36 nature-study lessons has been given in the museum to the children from the higher forms of the elementary schools. The lessons extended over a period of about 18 weeks, the average number of attendances each week being 70; making a total number of attendances of 1,260. A series of nature-study cases, for circulation among the elementary schools is in course of preparation. The approximate number of visitors who were admitted to the museum during 1907 was 52,818. These figures include those attending the city and other schools, field clubs, students attending the technical day school and schools of science and art.

CAMBRIDGE UNIVERSITY.—The building fund of the museum of archæology and of ethnology has received a donation of £4,000. This munificent sum has been subscribed "In memory of Watler K. Foster" by his widow and three other members of his family. Mr. Foster bequeathed in 1891 his entire collection of British and Continental antiquities, consisting of a selected series of most valuable stone and bronze weapons and implements,

and of associated finds from local Saxon cemeteries. The university will have good cause to keep the name of Foster in ever grateful remembrance. Thanks to this generous benefaction the university is now enabled to consider detailed plans and estimates for the much-needed new building. It is estimated to cost not less than £25,000, but since the committee entrusted with the business have issued their appeal to members of the university and to the general public, £8,000 of this sum has been secured, so that now a comparatively small sum only remains to be collected before building operations can be actually begun.

MUSEUM FUNDS FOR BRIGHOUSE, YORKSHIRE.—The town council of Brighouse have adopted the Museums and Gymnasiums Act so far as it relates to museums only, in order to levy a $\frac{1}{4}$ d. rate for the upkeep of the art gallery.

MUSEUM TAXIDERM.—The male and female Californian sea-elephant from Guadalupe Island, the gift of the Hon. Walter Rothschild, are now displayed in the central hall of the British museum (nat. hist.), and probably represent some of the last survivors of their species. They have been mounted by Rowland Ward, of Piccadilly, who has also set up a walrus for the Edinburgh museum.

NATIONAL GALLERIES OF SCOTLAND.—The Board of trustees have obtained the approval of the Secretary for Scotland to the appointment of an assistant keeper for the national galleries of Scotland at a salary of £150, rising to £250. The appointment is made in consequence of a rearrangement of the staff of the galleries, which has been rendered necessary by the appointment of Mr. Caw as director of both galleries. The appointment will be made shortly.

SUNDAY OPENING.—A little pamphlet on this subject prepared by Dr. Frederic Peake, M.A., has been issued by the Lord's-Day Observance Society, which tries to show that the opening of museums and art galleries has not been a success. So far as the national institutions of this character are concerned they do not seem to bear out this contention, for nearly all of them show an increase in the average number of visitors. The average attendance each Sunday was 8,064 in 1902 and 8,618 in 1907, or nearly half a million Sunday visitors in a year, to the eight national museums in London. The statistics for the provincial museums are not tabulated sufficiently clearly to allow ready reference or comparison, but it seems that in most towns where museums and art galleries are open the

Sunday visitors show good appreciation of the privilege thus properly belonging to them, though only in few cases is the attendance very large. Exception seems to be taken by Dr. Peake to the large number of young people who attend these institutions. Surely this ought to be a matter of sincere gratification to all interested in the well-being of the people.

CHESTER'S MUNICIPAL MUSEUM.—The Chester town council have adopted a scheme which involves the municipalisation of a large block of buildings known as the Grosvenor Museum, and hitherto carried on by a governing body with partial support in respect of its educational work by corporation grants. In the future this building will be controlled by a governing body, eight members being appointed by the local education authority, two by the Archæological Society, two by the Natural Science Society, and one by the trustees of Robert Oldfield's charity.

PLYMOUTH, NEW LIBRARY AND MUSEUM.—The foundation stone has been laid of the new building for library, museum and art gallery purposes in Plymouth, the total cost of which will be about £25,000. Of this sum Mr. Carnegie contributes £15,000 for the library, the rest being raised partly by subscription, partly by loan. A suitable site, granted by the corporation, has been found immediately opposite the technical schools, in one of the principal thoroughfares of the town.

TREASURE TROVE.—An interesting paper on the "Law of Treasure Trove," by Dr. William Martin, M.A., was read before the Royal Society of Arts last month. In it he suggests that the Board of Education should be entrusted with the duty of preserving treasure trove and should be empowered to act with alacrity when the knowledge of a find is communicated. This would be a great improvement on the present somewhat brutal method of referring the matter to the police and a coroner's jury. It is satisfactory to note that the government are showing a willing disposition to consider local museums in disposing of treasure trove, and rarely refuse an application from the museum of the district in which it was found. Dr. Martin makes the following practical suggestions in his paper :

(1) An extension of the law of treasure trove so that the law may include all articles of metal, whether strictly satisfying the requirements of treasure trove or otherwise and thus made to include metal relics whether abandoned,

accidentally lost, cast away as votive offerings, buried in sepulchral mounds, or otherwise hidden.

(2) A statutory basis for the reward to be paid to the finder, with an intimation that, where desirable or expedient, the antiquarian value of the relic should be approached in assessing the reward.

(3) Where the owner of the soil participates by existing law in a find, compensation should be paid him in exchange for the article compulsorily given up.

(4) Where the finder and the government office, which is specially selected to deal with all matters arising under the law of treasure trove, disagree as to the antiquarian value of a find, assessors should be appointed.

(5) Administration of the law of treasure trove should be transferred to a government department, such as the Board of Education.

(6) Statutory restriction of the functions of the coroner to those duties which by words appear in the Coroner's Act of 1896.

(7) In the case of a refusal to give up "treasure which has been found" the ordinary civil remedies should be employed in the same manner and to the same extent as when other property in the absence of felonious intention is retained. Threats and visits by the police, coroner's officers or other functionaries endowed with jurisdiction, to be avoided as far as practicable.

BRITISH MUSEUM (NAT. HIST.).—A very beautiful group of polecats, comprising six cubs, the "Hob" and "Jill," has just been added to the collection of British mammals in this museum. The whole family were taken at the same time in Breconshire, and the museum is to be congratulated on having secured such a family group, for the polecat is becoming increasingly rare, a fact which, in some ways, is to be deplored. The gallery in which the polecats have been placed also contains the collection of British birds. Many of these were badly stuffed, while others had faded out of recognition. These Mr. Rowland Ward has generously replaced at his own cost, and it is needless to say that the new specimens are not only the finest of their kind in point of plumage, but the mounting leaves nothing to be desired in the way of natural taxidermy.

WHITECHAPEL ART GALLERY—The spring exhibition which will be open from March 13th to April 26th, should prove as successful as any predecessor. The upper gallery contains groups of pictures by members of the Royal

Academy, the International Society, the New English Art Club and by Scottish and Cornish artists. In another room there are copies of masterpieces by Gainsborough, Etty, John Phillip, Fantin-Latour, Manet, Sargent, and Lavery. The works copied will enable those who cannot visit Venice or Madrid to realise the genius of Titian and Velasquez in all its glory as interpreted by some of their greatest followers. Alfred Stevens is represented by fifteen of his copies of the Italian Masters he admired so much and emulated with a power almost equal to their own. Gainsborough's inspiration came from Vandyck, and Lord Darnley is lending a splendid copy by the English artist of a painting by the Fleming, and others who are contributing are the Duke of Rutland, Earl Northbrook, Lord Aberdare, the Earl of Carlisle, Earl Carrington, Lord Ribblesdale, Mr. Pierpont Morgan, Sir Edgar Speyer, and Mr. Andrew Carnegie.

THE ILKLEY MUSEUM.—The contents of the Ilkley museum are being removed to the new free library, where provision has been made for their future housing. The building that has hitherto served this purpose was at one time a Wesleyan chapel, and has also done duty as a navy mission and Salvation Army barracks. Its use as a museum came about in 1892 through a desire on the part of a number of local gentlemen to collect and preserve permanently the many evidences frequently unearthed of Ilkley's antiquity. Roman coins, urns, pottery, and monumental stones, falling into the hands of all sorts of people, were being gradually scattered over the country. The Ilkley museum and Antiquarian Society was organised to purchase the building and get together a collection, and though the society admirably succeeded in this initial work, the provision of the money for maintenance proved such an unsatisfactory business that in 1896 the land, building and contents were handed over to the Ilkley district council. With the sanction of the Local Government Board the council paid off a mortgage of £350, and having adopted the Museums and Gymnasiums Act provided the money necessary for maintenance. Since that time the museum has been open to the public on three days of the week free, and on the other three days at a nominal charge. The district council have decided to sell the old building.

BRISTOL ART GALLERY.—We have received some excellent photographic postcards giving views of this gallery

and some of its contained pictures, which pleasantly call public attention to the art treasures of the city.

THE CHANTREY BEQUEST.—The trustees of the Chantry Bequest have purchased the picture by the late J. Buxton Knight, "Old December's bareness everywhere," which was shown in last year's Royal Academy, and in the memorial exhibition of the artist's works at the Goupil Gallery, London.

GIFT TO MANCHESTER ART GALLERY—Messrs. Durand-Ruel have presented two pictures to the Manchester Art Gallery, leaving the choice to the committee, who have selected "Fishing Boat at Douöelan" (1897), by Henry Moret, and "Springtime at Lavardin, Loire et Cher" (1907), by Maxime Maufra.

ENCOURAGING ART.—Count Plunkett, director of the Dublin Museum of Science and Art, has resolved to offer prizes to students of the Metropolitan school of art for sets of drawings from objects in the museum collections. This is with the excellent aim of stimulating students to profit to the full from the art collections.

ART BEQUESTS.—Lord Battersea has bequeathed his picture, "The Golden Stairs," by Burne-Jones, to the National Gallery, on the decease of Lady Battersea; the portraits of himself and his wife, by the late E. Sandys, to the National Portrait Gallery, on the decease of the survivor of Lady Battersea, his sister, Clara Brand, and his niece, Dorothy Brand, in each case requesting the authorities to denote by a plate on the frame or on the wall adjacent from whom these pictures came.

SCOTTISH MODERN ARTS ASSOCIATION.—The latest purchases by the Scottish Modern Arts Association are "Crippel," by Mr. D. Y. Cameron; "Flight of the Swallows," by Mr. J. H. Lorimer, R.S.A.; and "Meditation," by Mr. Graham Glen. In addition to these purchases Sir Thomas Gibson-Carmichael, Bart., has presented to the association a characteristic example of Mr. Edwin Alexander's art, entitled "The Great Tit," and Mr. Stodart Walker, chairman of the executive of the association, has presented a piece of sculpture in low relief by Mr. Bertram M'Kennal.

ANTIQUARIAN DISCOVERY AT LINCOLN.—A stone coffin has been unearthed in Silver Street, Lincoln. Workmen were effecting alterations in the rear of the offices formerly occupied by the late Mr. John Swan, solicitor, when the coffin was discovered. It was well preserved, with the

exception of the head portion, which had been damaged by water, and was found about eighteen inches below the surface. It is quite possible the relic will be presented to the county museum.

BOURNEMOUTH'S LADY "FREEMAN."—The Bournemouth town council have unanimously resolved to confer the freedom of the borough upon Mr. and Mrs. Merton Russell Cotes, in recognition of their generous gift of East Cliffe Hall to the town for an art gallery. Mrs. Cotes will be Bournemouth's first "Lady Freeman."

ECONOMIC BIOLOGISTS.—The Association of Economic Biologists, which was formed a few years ago with the object of bringing together workers interested in zoological science in its application to economic questions, will this year hold its annual meeting in Edinburgh, on the 25th and 26th of March next. Mr. A. E. Shipley, of Cambridge, has been nominated to be president, and Sir Patrick Manson, Dr. Somerville, and Professor P. V. Theobald vice-presidents.

SUGGESTED LOCAL MUSEUM, MANCHESTER.—A deputation from the Manchester branch of the Historical Association, headed by Professors Tout, Sadler, and Tait, has laid before the Lord Mayor of Manchester an appeal stating the urgent need in Manchester for a historical museum, more especially for educational purposes, and expressing the hope that the new building shortly to be provided in place of the present Reference Library in King Street will include accommodation for such a museum in close association with the library.

A RAILWAY MUSEUM.—An interesting light is shed on the early days of railway travel in this country by the collection of mementoes or relics which is gradually being amassed by the various departments of the London and North-Western railway, for ultimate exhibition in a museum which, it is hoped, may one day be established at the company's headquarters at Euston. Even now there is ample material available to stock a fairly large museum, and every day the catalogue of curiosities, as so many of them really are, is being extended. The progress of locomotive building will be illustrated by a finely-executed series of engine models. Here we shall see the early type of skeleton-looking engine of 1830, with its tall and slender smoke-stack, contrasted with the giants of more modern days. The advance of permanent-way construction will be shown by numerous actual specimens, and perhaps relics of noteworthy accidents may even find a place in this particular

section. The gradual perfection of signalling apparatus from its crude and elementary beginnings will constitute a department by itself. Another interesting section will depict the gradual development of the railway carriage. Portraits of celebrated pioneers intimately associated with the growth of the London and North-Western system will naturally form part of the general collection. But interesting as these different groups of exhibits will prove, on the mechanical side particularly, they are probably eclipsed in interest by the large collection of mementoes which has been got together to illustrate the gradual development of railway travelling on its administrative and its literary side, as represented by maps, guide-books, timetables and the like.

HOW TO EXHIBIT AUTOGRAPHS.—Colonel Leetham, the curator of the Royal United Service Museum in Whitehall, has presented to that institution an ingenious appliance which he has himself designed for the exhibition of the valuable collection of Nelson autographs which are housed in that building. This consists of a long glass frame so arranged that the autograph letters, which are enclosed in smaller frames of glass, can be suspended between the two sheets of glass and be easily read on either side. It is impossible, of course, to do this when, as is usually the case in ordinary museums, exhibits of this character are laid flat. Colonel Leetham is also the inventor of the new arrangement by means of which the beautiful model of the Field of Waterloo can now be viewed in all its detail through powerful magnifying glasses and with the aid of electric lights.

BEQUEST TO NOTTINGHAM.—Nottingham has been coming in for some rather embarrassing bequests lately, and the following one will call for a little judicious selection : Mrs Fanny Peach, who died on November 27th last, aged 77 years, daughter of the late Lieutenant William Clarke, R.M., of Epperstone, Notts, and widow of Mr Thomas Peach, left the following bequests :—To the Mayor, aldermen and burgesses of the City of Nottingham, the following paintings, engravings, curios, and works of art to be placed in the museum at Nottingham Castle, and known as the "Clarke Collection" :—(1) Oil painting, "The Tribute Money," after Titian ; (2) oil painting, "Landscape with Boat" ; (3) Engravings of Admiral Sir Samuel Hood and Admiral Sir Richard King ; (4) water-colour, "Action in the Baltic" (in which action her father, Lieutenant William

Clarke, R.M. served (5) photograph of the said Lieutenant William Clarke, R.M. ; (6) his medal and sword ; (7) a prize French sword ; (8) a cutlass ; (9) a blunderbuss ; (10) an old Chinese cabinet with contents ; (11) a piece of Queen Elizabeth's dress in a flat glass bottle ; (12) six Bartolozzi miniatures ; (13) an old embroidered satin waistcoat ; (14) gold coat of arms seal of her father ; (15) pair of small inlaid pistols ; (16) book of recollections of her father, the said Lieutenant William Clarke ; (17) lace and muslin embroidery ; (18) portraits of the said Lieutenant William Clarke and his wife, Anne Rebecca Clarke ; (19) picture of the frigate *Resistance* ; (20) sash and badge belonging to the said Lieutenant William Clarke, R.M. ; (21) an old Chelsea china teapot.

ROMANO-BRITISH FIND, NORTHAMPTON.—A stone coffin of the Romano-British period, containing the skeleton, it is thought, of a young or middle-aged woman, has been found in Duston parish, adjoining Northampton. She was evidently a person of some importance, as stone coffins were not in general use at this period. The skull has perished, but the hair, which is of a dark auburn tint, is intact. It was presumably a Christian interment, as the feet were placed eastward, and there was nothing in the coffin but the skeleton. The period of the burial is believed to be towards the end of the Roman occupation of Britain, and it is thought most probable that it took place in a chapel or mausoleum, as the coffin was found in the centre of some foundations of a Romano-British building. By the courtesy of the lord of the manor the coffin and contents have been removed to Alington Abbey, one of Northampton's museums, under the supervision of Mr. T. J. George, the curator.

WALLACE COLLECTION, LONDON.—The trustees of the Wallace Collection give notice that Galleries XVIII., XIX., and XX at Hertford House, containing French furniture and pictures of the eighteenth century, have been opened after re-decoration.

A NOVEL TALK ON PICTURES.—A lantern lecture on pictures in the Manchester City Art Gallery was given in the Queen's Park Branch Gallery by Councillor Butterworth, chairman of the art gallery committee. Picture after picture was shown on the screen, and Mr. Butterworth, in homely language, told their histories and explained why they were good pictures and what were the things to look for in them. His audience, plain folk for the most

part, listened most attentively, and every now and then when especially pleased by some picture or other warmly clapped approval. It was easy to see that the pictures with a human "story" appealed to them most. Rossetti's big-lipped women were looked at reverently enough and let go quietly by; but Herkomer's "Hard Times" evoked loud applause. Mr. Butterworth made a very unconventional lecturer. Edwin Waugh the Lancashire poet's portrait prompted him to remind his audience that painting was not the whole of art; poetry had its place, and music. He spoke of the human interest in Waugh's poems, and ended by singing one of them set to music. "It may not seem quite the thing from the chairman of the art gallery," he said, "but never mind that; let's be jolly." And he started off in a pleasant voice with "Come whoam to th' childer an' me." There was no piano, but that did not matter. At his request the audience chipped in at the chorus. The voices were not very good, perhaps, and they were a little shy, but the darkness helped, and they did their best. By the last verse there was quite a substantial chorus. Kindly looking old Edwin Waugh seemed to smile down from the screen. It all went so well that another of Waugh's songs was given, then some more pictures, and then another, "A lift on the way." The lecturer was cheered most heartily at the finish, and everyone seemed to go away pleased. A wavering-footed Darby going slowly down the dimly lighted park path was heard tell his Joan, "Eh, th' pickchurs were fine, but them songs was real extra." Mr. Butterworth is apparently in for a large audience when next he talks on pictures Queen's Park way, and can at least be expected to be entertaining.

FITZWILLIAM MUSEUM, CAMBRIDGE.—The syndicate appointed to consider whether it is desirable to amend the regulations relating to the staff of the Fitzwilliam Museum are of opinion that the duties of the director should not be materially increased, but they think it would be advantageous that they should be, in some respects, made more definite, and that the director's attendance should be, partially at all events, at fixed hours, and that there should be an express provision for the keeping of a register of accessions. They further think it would be proper and reasonable that a certain amount of residence within the precincts of the University should be required, as is the case with the director of the observatory and the librarian. The syndicate do not think, in view of the responsible and

onerous duties of the director, that his present stipend (£300 a year) should be diminished. They propose the addition of a small number of other *ex-officio* members to the board who elect to the directorship. The syndicate also think that it is very important that an assistant director should be appointed. His duties should be to assist the director, he should be required to reside for a certain number of weeks in each year, and it should be arranged that either the director or the assistant director shall be resident within the precincts of the university in every week of the year. The stipend of the assistant director should not be less than £100 a year. The syndicate understand that the income of the Fitzwilliam Fund could not conveniently provide this sum in addition to the director's stipend, and they have decided to recommend that it should be paid from the general funds of the university.

DUBLIN ART GALLERY.—A gallery of modern art has now been established in Dublin, thanks mainly to the unremitting energy and generosity of Mr. Hugh P. Lane, and was opened by the Lord Mayor in January. The pictures and other works of art exhibited consist of two classes—firstly, those which formed a portion of the collection of the late Mr. Staats Forbes, and were presented by individuals or purchased by subscription for presentation to the modern art gallery committee; and, secondly, those presented by living artists. The latter class of pictures the committee of the Modern art gallery agree to transfer absolutely to the corporation, and the former, which are held in trust by representatives of this committee, will be deposited with the corporation for an indefinite period, not to be less than twenty years, and not to be removable, then or thereafter, unless on two years' notice to the corporation. There are therefore in the gallery the pictures presented to the citizens by living artists as representative of their work, and the pictures purchased from the executors of the late Mr. Staats Forbes. Furthermore, Mr. Lane now hands over his collection of pictures and drawings of the British school (70) and Rodin's masterpiece, "L'age d'Arain," and also presents the group of portraits of contemporary Irishmen and women (which will be added to as time goes on), and lastly, Mr. Lane places in the charge of the trustees of the Modern Art Gallery his collection of pictures by Continental artists, and intends, eventually, to present the greater part of this collection to the city absolutely, should a permanent gallery be provided within

the next few years. This later collection includes a selection of the Forbes and Durand Ruel pictures, which Mr. Lane purchased at the close of the winter exhibition of the Royal Hibernian Academy, and some important examples of the work of Manet, Renoir, Mancini, etc., which he has purchased in his desire to make the gallery representative of the greatest painters of the nineteenth century. For the purpose of differentiation Mr. Lane has attached the label "Lane Gift" to his British school collection and the Rodin bronze, and the label "Lane Collection" to those pictures which he places in the charge of the trustees. The Corporation has made an annual grant of £500, and authorised one of its committee to hire and maintain premises in which the collection could be temporarily preserved and exhibited pending the erection of a permanent building in a suitable locality. This temporary building is in Harcourt Street.

BRADFORD ART GALLERY.—An interesting exhibition of pictures was opened by the Lord Mayor of Bradford in the Cartwright Memorial Hall, on March 3rd. This special collection on view aims rather at displaying the general field of British art rather than relying on the attraction of well-known names only, and to that extent it has direct teaching value of the most encouraging nature, for in it one can recognise how earnestly, sincerely, and meritoriously art is pursued to its purest aims by a large number of artists who have perhaps not yet become "fashionable."

OLD LEEDS: THE PROPOSED EXHIBITION.—Inquiries are being made with the object of ascertaining if it is possible to obtain a sufficient number of promises of objects of interest to justify the Leeds Corporation in organising an Old Leeds Exhibition to be held in the City Art Gallery next June. Already offers to lend several interesting exhibits have been received, and the hon. secretaries (Mr. E. Kitson Clark and Mr. J. Rawlinson Ford) and the City Librarian (Mr. T. W. Hand) are anxious to obtain further promises of assistance. In a circular which they have just issued, they say that the articles which it is desired to get together include arms and armour, autographs, books, broadsides, charters, deeds, early trade implements, engravings, maps, medals, newspapers, old prints of Leeds and district, paintings by deceased Leeds artists, photographs, portraits of old Members of Parliament, Mayors, and prominent townsmen, pottery, seals, and tokens. These would, as

far as possible, be arranged in chronological order relating to the prehistoric, British, Roman, Saxon, Norman, Mediæval, Tudor, Stuart, and Hanoverian periods, and a catalogue would be issued with full descriptions and illustrations which would be of considerable value as a permanent record of Old Leeds. "It is thought that an exhibition on these lines would prove of general interest, and of educational value.

ABROAD.

AMERICAN MUSEUM OF NATURAL HISTORY.—Dr. Henry Fairfield Osborn, a vice-president of this museum and its curator of vertebrate palæontology, has been elected president of the museum to succeed the late Morris K. Jesup. The permanent endowment fund has been increased by a gift of \$10,000 from Mrs. J. B. Trevor and by a bequest of \$25,000 from the late William P. Davis.

Some specimens of that exceedingly rare mammal the *Solenodon* from Haiti have been received at this museum, and are figured and described in the *American Museum Journal* for February, which also contains papers on "A Stone Idol from Talieti." An Archæological Reconnaissance in Wyoming, with an illustration of a petroglyph, and also a reference to the gift of the Du Cane Godman collection of beetles from Mexico and Central America, containing more than 4,000 specimens, representing 1,679 species.

BROOKLYN INSTITUTE, CENTRAL MUSEUM.—The Museum has just acquired by purchase from the collection fund of 1907 the collection of shells formed by the late Mr. Charles A. Dayton. This comprises 3,700 species, represented by about 20,000 specimens, and was the result of thirty years' careful work. It includes many rare species, many series illustrating the range of a species in size, form, and colour, and many specimens obtained on account of their size or perfection. For exhibition, as well as for study, this collection is most important, and as Brooklyn now contains many active students of conchology, it is hoped that this and the other conchological collections of the Museum may prove of much service.

METROPOLITAN MUSEUM OF ART, NEW YORK.—The Monthly Bulletin issued by this museum, gives an excellent record of its work and progress which cannot fail to sustain the public interest. The issue for February shows that the month's accessions comprise pottery, arms, medals,

paintings, sculpture, and textiles. The paintings are portrait of Miss Mary Storer, by John S. Copley; and "Courtyard of a Blacksmith's Shop," by Gerard Terburg. The Bulletin announces the exhibition of the works of the recently deceased artist Augustus Saint-Gaudens. An illustration is also given of a Mycenæan gold cup recently added to the museum, as well as fictile vessels from Crete, with notes on the discoveries at Knossos taken from the works of A. J. Evans. The figure of a snake Goddess from Knossos taken from the text is more interesting than beautiful, and scarcely belongs to the domain of art.

SUB-ANTARCTIC EXPEDITION — After an absence of three weeks the members of the scientific expedition inaugurated to explore the natural history of the Auckland and Campbell Islands, returned to New Zealand on December 2nd. Valuable observations were made and many specimens secured for research and museum purposes. On arrival at the Auckland Islands a flag was seen to be flying at Port Ross, and fourteen survivors of the barque "Dundonald," wrecked on Disappointment Island on March 14th, were subsequently taken on board. The men had undergone eight months of privation and hardship, and Mr. Edgar R. Waite, curator of the Canterbury museum, Christchurch, secured many relics of the survivors. Chief among these is the framework of a boat in which three of the men reached the main island; this was fashioned of twigs lashed together with rope yarn and covered with canvas, to supply which the men had to unpick their clothing which they had previously made from a sail, this being the only article saved from the wreck, which sank in deep water. The clothing and the cover of the boat were stitched by means of needles made of the bones of mutton birds. By similar means skins of albatrosses were sewn together to form blankets. Slippers were made of sealskin of approved pattern, one of the men being a Russian Finn. A canvas bailer made to bail the coracle, caps of Robinson Crusoe and Tam O' Shanter pattern, and many other articles were preserved. Photographs of the men, their huts of grass, &c, were also taken.

BOSTON MUSEUM OF FINE ARTS. — The February number of the *Bulletin* reports on the success that has attended the institution of docents or peripatetic guides to the museum. From October 1st, 1907, to the end of the year, the services of the two gentlemen appointed have been called for by 437 persons, of whom 231 applied during the month

of December. This seems a fairly satisfactory response on the part of the public. A rough calculation based on the number of admissions to the museum shows that the proportion applying for the services of a docent was about 6.72 per thousand: but the proportion appears to be rising rapidly and the new facilities are being widely advertised. In addition to the services of the docent 168 lectures have been given in the class-room of the museum to 3,263 auditors, and special courses have been given to the classes of the various schools, as well as gallery-talks on the collections by several officers of the museum.

THEFT FROM AMIENS MUSEUM.—Recently the Picardy Museum at Amiens was broken into by burglars, who stole eight valuable pictures and a large number of ancient gold medals, the total value of the stolen articles being estimated at 300,000 francs. The police have as yet no clue to the thieves.

THEFT OF A VANDYCK.—A picture by Vandyck, representing the Descent from the Cross, and valued at about half a million francs, was stolen last month from the Church of Notre Dame at Courtrai. It is one of the finest of Vandyck's works. From the investigations that have been made, it would appear that the thieves reached the church in a motorcar, and that they hurriedly cut the canvas from its frame. The church has been closed to all comers.

THEFT FROM ROUEN MUSEUM.—Thieves have made their way into the Museum of Antiques at Rouen, climbing over a garden wall, breaking a railing, and picking the lock of an iron gate dating from the fourteenth century. Four enamels of the sixteenth century, depicting Christ in the Garden of Gethsemane, the Kiss of Judas, the scourging, and the Ecce Homo, all valued at six thousand francs, were abstracted, and there is evidence of the attempt to fracture a glass case containing two hundred ancient Roman coins, the conclusion being that the thieves, hearing a noise in the porter's lodge, then took to flight. The porter says that on Saturday two visitors, a man and a woman, called about three o'clock in the afternoon and minutely inspected the different collections, asking a number of questions about them, but nothing seems now to be known of the strangers at Rouen. A similar theft occurred at this very museum seven years ago, when several precious articles were taken away, and it was at that time that extra precautions were adopted, bars being affixed to the windows,

but, as has been seen, thieves have all the same managed to effect an entrance.

BRAIN LOSS.—An extraordinary mishap is reported from the Medical College at Philadelphia. In accordance with the terms of the will of Walt Whitman, the brain of the dead poet has been preserved in the museum of the college, but recently one of the attendants accidentally dropped the preserving jar in which it was kept. The jar was shattered and its contents destroyed.

CAPETOWN ART GALLERY.—From the exhibition of the Institute of Oil Painters, the picture by Mr. Harold Knight, "Grace," was purchased on behalf of the Capetown Art Gallery. It represents a French peasant and his wife asking a blessing before commencing a meal, and was priced in the catalogue at £400.

THE FINE ARTS IN ITALY.—Signor Rava, the Minister of Public Instruction, Italy, has made a statement before the Commission of Fine Arts to the effect that the branch of his Ministry which deals with the Fine Arts had for the first time since the constitution of the kingdom of Italy been put on a solid footing with an increased grant for salaries of £16,000 a year. There had also been placed at its disposal a sum of £200,000 for the purpose of making purchases of works of art. A special council would be entrusted with the control of this fund. Legislation would also be laid before the Chamber to dispose of the legal difficulties which beset the preservation of monuments and any other objects of artistic value, to which preservation his Ministry had already contributed by grants of money to municipalities, ecclesiastical communities, and other corporations. The Palazzo Ducale of Gubbio would be restored and converted into a museum. In the matter of archæology, Parliament had voted means for buying and isolating the area occupied by the Baths of Diocletian. The Ministry was fully prepared to buy any statues or other objects of sufficient value which were discovered in excavation. Preliminary studies were being made for excavations at Herculaneum; and funds had been granted to the Syracuse branch for excavations in Sicily.

MUSEUM OF VOICES.—The inauguration of the Paris Opera Gramophone Museum for keeping on record the voices of the most celebrated singers of the day is an event of historic importance. The question of preserving records of the voices of the great singers and the way they had of

rendering operatic arias or parts in which they had acquired celebrity, had long been mooted ever since the discovery of phonographic instruments, and the honour of founding the first official museum of the kind in Paris and in connection with one of the world's greatest opera houses, was reserved to two men, M. Pedro Gailhard, the retiring manager of the great French National Academy of Music, who for the last twenty years directed the Paris Opera, and to Mr. Alfred Clark, the general agent and representative of the Gramophone Company in France.

AN HISTORIC COIN.—The French National Museum has bought for £6000 one of the ten 20-franc gold pieces struck in 1806 to commemorate Napoleon's assumption of the Imperial title. The owner of the coin, M. Petrovich, inherited it from his grandfather, to whom Marshal Marmont gave it at the capture of Ragusa in 1806.

DIPLODOCUS FOR BERLIN.—Mr. Andrew Carnegie has offered to present to the Kaiser for the Berlin Zoological Museum a plaster cast reproduction of *Diplodocus Carnegii*, the fossil remains of which were found in Wyoming, U S A, and are at present in the Pittsburg museum. Mr. Carnegie in 1905 presented to the King a similar reproduction of this huge land reptile, which may now be seen in the gallery of reptiles at South Kensington. The specimen is over 80 feet in length.

NATIONAL ART GALLERY OF NEW SOUTH WALES.—The trustees of the gallery will consider the purchase of two or more works each year (for two years) by artists resident in the Australian States and New Zealand, to the following values, viz., not exceeding £100 each for oil paintings or pieces of sculpture; not exceeding £75 each for water-colours. Paintings of scenery or subjects in the more remote districts of the various States and colonies are specially desired (figured subject and sculpture excepted). No work will be considered eligible if it has been previously on public exhibition. Subjects: The subjects for each year will be as follows, viz.:—First year: (I.) Watercolour; (I.) oil painting. Subjects: Coastal, river, landscape, or marine. Second year: (I.) Watercolour; (I.) oil painting or sculpture. Subjects: Figure and landscape (combined); figure—subject (painting or sculpture); cattle and landscape subject (combined), or pastoral and agricultural. Any works which comply with the following terms of the annual Wynne art prize will be noted in connec-

tion with the award for that prize :—This prize, which was offered for competition each year, was bequeathed by the late Richard Wynne, to be awarded to the Australian artist producing the best landscape painting of Australian scenery in oils or watercolours, or the best example of figure sculpture, executed by an Australian sculptor (value of prize, between £30 and £40).

MYSTERIOUS DISAPPEARANCE. — A strange statue mystery has excited interest in art circles. Last seen in the Metropolitan Art Museum of New York, fifteen years ago, a life-size statue of Hiawatha, by St. Gaudens, had disappeared. It seems a startling state of affairs, but no explanation as yet is forthcoming. One can understand a picture being cut out of a frame in a gallery, but that anyone should walk away with a life-sized statue under the eyes of the janitor is an achievement almost worthy of success. It is not suggested that, like Galatea, Hiawatha came to life. The discovery that the statue was gone seems to have been peculiar. Somebody remembered that Hiawatha was St. Gaudens first work in marble, and suggested that it should be obtained for the forthcoming exhibition of his works. Then it was that it could not be found. Search has been made in cellars, but to no purpose, and there appears to be no record of its removal. The theory is now advanced that St. Gaudens, on becoming famous, was dissatisfied with his first work and smashed it.

OBITUARY.—We regret to learn of the death on January 27th, of Dr. Maximilian Meissner, curator in the Berlin Zoological Museum, aged 47 years.

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The School Museum System at Sheffield.

BY E. HOWARTH.

[Read at the Dundee Conference, 1907.]

ALTHOUGH this is a subject that I have on a previous occasion brought before your notice, a good many years ago, it may interest the meeting to know on what lines the School museum system is conducted, now that it has developed into a fairly comprehensive scheme to meet the requirements of both primary and secondary schools. Since this Association has been in existence the growth of feeling in regard to the connection between school and museums, the link which 18 years ago seemed somewhat indefinite in form, has steadily grown into a binding force. And, yet, we must all still feel that we have not by any means arrived at the height that museums ought to attain in direct relation to the educational system of the country. I sincerely hope myself that, before long, all provincial museums will come under the management of educational boards, and that they will be directly co-ordinated with the teaching in our schools, both elementary and secondary. That might best be done now when secondary education itself is coming under the management of the educational committees.

Having said so much on the general question, I will proceed briefly to state the methods we have adopted in Sheffield to deal with the demands of schools for specimens to familiarise the scholars with natural history objects, and also to give them some idea of art and architecture. After consultation with the local branch of the Teachers' Guild we started first with a few cabinets to illustrate

natural history. For these were selected fairly good specimens, and, as far as we could, we had them arranged and classified on biological lines. The cabinets were made of a portable size fitted with trays, and are delivered by one of the museum officials to the various schools once a month. After remaining for a month at the different schools the cabinets are collected and brought back to the museum, where they are carefully examined and then re-distributed, a different cabinet being sent each time. Those who have had "A" cabinet receive "B" cabinet, and so on, the general intention being to distribute them in scientific order. The system has grown to such dimensions that it is now impossible to meet all the applications for them, or even to find adequate accommodation at the museum for dealing with these special school collections, and we shall really have to have a separate department for the work.

On the lid of each box, hinged to lift upwards, the label stating its contents is placed. Where possible each specimen is put into a numbered glass-topped box, which fits in its place in the drawer of the cabinet, and the specimen thus placed under the glass can be passed to the scholars to examine and inspect in their own hands. In the case of vertebrates the larger forms have to be dealt with in a different way. In the first instance the birds consisted of filled skins, not mounted, and these were shown and passed round the class. In connection with this method some of the teachers complained that these were doing harm, in a moral sense; they were dead birds, and the children always thought of dead birds, and they wished for something that looked more alive. Then we had some birds mounted, but in passing these round the classes, after being taken out of the trays, they were not infrequently damaged, but as they were very easily replaced, being mostly well-known British species, the advantages were well worth the slight cost and trouble. I started the first cabinet of mammals with a series illustrating the relation of parts of animals in the different orders, such as the hand, the foot, the skull, teeth, together with a few stuffed skins of typical

orders such as Carnivora, Rodentia, &c. The mammals became very popular, so other cabinets were added to illustrate a single group, and so forth, as will be understood from the appended list. Of course we could only deal with the smaller mammals, as our biggest cabinet only measures two feet each way, and it was imperative that they should be easy for transit and handling. Although we have no distinct botanical department and no botanist in the museum, we were fortunate in obtaining the willing voluntary services of Mr. Edward Snelgrove, B.A., a well-known writer on botany, and one who has not only specially studied the question in regard to school teaching, but from his position as head master in one of the Sheffield council schools knew exactly what was useful. He very kindly prepared the botanical cabinets. We send microscopes in some cases.

Following these, we made up some cabinets of minerals, and the first cabinet is divided into four trays, one tray containing the ores and other metals of chief importance to Sheffield, another the other ores in general use in arts and manufactures, then the forms of silicates, &c., and the fourth tray contained some crystal forms. Another cabinet was devoted to coal fossils, &c., and it was made up with a view of illustrating the carboniferous system in our own district. Cabinets illustrating manufactures were also prepared, but it was very early demonstrated that the schools did not want them, and after the first few months they were never applied for. Besides the cabinets there was afterwards added a series of large folios containing illustrations of architectural features, notable buildings, and archæological remains in various countries, as well as reproductions of famous pictures, &c. These were of large size and the schools were advised to provide frames with hinged backs to exhibit the pictures in the schools. There are also casts of historical medals, a geographical series of maps and charts, and the most recent accession is a series of stereoscopes with the requisite views. Thirty stereoscopes and thirty copies of each view are provided so that an

entire class can use them at one time. Thus each pupil has the same view and they have proved amazingly attractive in the schools, demands being made for a large extension of this series. I am not quite sure of their direct teaching value, but they certainly give the pupils pictures of places that may interest and may not be altogether without some practical benefit. We have about forty boxes of lantern slides, illustrating early British history, pre-Roman, Norman, &c., also the topography of Yorkshire. We find that the whole of the circulating collections are very greatly appreciated, and we believe they are doing practical service in connection with the education of the school children of Sheffield.

It may be useful to indicate shortly the method of inception of the scheme as a whole. A committee of the Teachers' Guild was appointed, of which I was elected chairman, and as a result of our deliberations I arranged a sample museum cabinet, which I explained, in the form of an object lesson, to the general body of teachers. It was heartily approved, and I then organised the system of circulating cabinets, portfolios, slides, &c., which I have outlined above. From time to time meetings of the teachers were held, when new additions or fresh departures were exhibited and practically demonstrated. In carrying out the work I have been ably assisted by Mr. E. Snelgrove, B.A., already mentioned; Mr. C. Bradshaw, assistant curator in the museum, who has been responsible entirely for the geological and mineralogical cabinets; Prof. W. C. F. Anderson, M.A., formerly of University College, Sheffield; and the officers of the Sheffield branch of the Teachers' Guild, which has borne the cost of providing cabinets, portfolios, slides, &c., and such specimens as were not available from the collections in the Sheffield public museum. The cost of distributing and collecting the cabinets has been borne throughout by the museum committee, who have always given their hearty support and approval of the work.

The following is a condensed form of the particulars of these circulating collections printed and sent to each school, and it shows the range and purposes of the whole system.

PARTICULARS OF CIRCULATING COLLECTIONS.

The Circulating Collections are issued on the following conditions :—

- 1.—They are sent out and collected free of charge to schools within the city.
- 2.—No Cabinet or Portfolio can remain at a school longer than a month.
- 3.—If more than one application is made for a Cabinet or Portfolio, it will be sent according to priority of application.
- 4.—The Teacher making application will be responsible for the contents, and will be required to make good any damage done.
- 5.—A charge of one shilling per month will be made for each Cabinet or Portfolio.

SCHOOL MUSEUMS.

NATURAL HISTORY.

CABINET A

Illustrates the groups of Sponges, Zoophytes, Corals, and Starfishes. Examples are given of British Sponges showing their form of growth, and Foreign Sponges, to illustrate the more complex structure of these creatures. Specimens of different kinds of Corals, with a drawing of the coral animal. Zoophytes, to show their plant-like structure, and a drawing of the animal that forms them. Different kinds of British Starfishes and Echinoderms are also contained in the cabinet, and a few forms of a more striking character.

CABINET B.

Insects.—In this cabinet the various divisions of insects are illustrated with British and Foreign examples, such as Butterflies, Moths, Dragonflies, Beetles, Bees, Grasshoppers, etc. Some of the cases are arranged to show their metamorphoses and food plants, while others illustrate protective colouring of insects.

CABINET C.

Crustacea.—Includes Stone Crab, Spiny Lobster, Hermit Crab, fresh water Cray fish, cast shell of Lobster, Swimming Crab, Masked Crab, Shrimps, etc.

CABINET D.

Shells.—Bivalve and Univalve shells of various species to show the different forms. Chalk perforated by Pholas, Section of Nautilus, Pearl Shells, Paper Nautilus, and such others as best illustrate the formation of shells and the habits of the animals that lived in them.

CABINET E.

Reptiles.—Hawks-bill Turtle, from which the tortoise shell of commerce is obtained. The specimen shows the skeleton illustrating the bony structure of the Shield Reptiles. Tortoise. Adder or viper, poisonous; and common Ring Snake, non-poisonous, to show the distinction between these two common British Snakes. Lizards and Chameleon. The different stages in the development of a frog are mounted in spirit to show its metamorphosis.

CABINET F.

Birds.—A selection of birds, chiefly British, is arranged to show the different forms, such as swimmers, perchers, climbers, birds of prey, runners, etc., there being in all 22 birds in the cabinet, with some nests and eggs. Most of the birds are in skin, filled but not mounted.

CABINET F 1.

Birds.—Mounted specimens of British birds, to illustrate summer and winter migrants, and residents, with an account of their geographical distribution. A few nests and eggs are included.

CABINET F 2.

Birds.—A continuation of the preceding one.

CABINET F 3.

Birds.—Skin of Nightingale, Snow Bunting, Hawfinch, Crossbill, Toucan, Parrakeet, Curlew, Duck, Woodcock, Cuckoo, Song Thrush, Humming Bird (2), Stilt, Oyster Catcher, Gull, Owl, Kestrel, Woodpecker, Corncrake. Head and foot of Motmot, Kingfisher, Duck, Heron, Shrike, Parrot, Smew.

CABINET F 4.

Birds.—Head and foot of Kiwi, Lesser Black-backed Gull, Godwit, Woodpecker, Cormorant, Parrot, Owl, South American Falcon, American Grebe, Jacana, Song Thrush, Indian Weaver Bird. Skin of Mistletoe Thrush, Meadow Pipit, Bullfinch, Nightjar, Humming Bird (2).

CABINET G.

Mammals.—Human jaw, to show dentition and comparison with monkey, lemur, and dog, whose skulls are included in cabinet, together with a series of the bones of the hand and foot in man, monkey, lemur, Skeleton and stuffed mole, skeleton and stuffed squirrel, skeleton of bat, and stuffed specimen of stoat or ermine. Stuffed bat and hedgehog. Foot of goat.

CABINET G 1.

Rodents.—Flying squirrel, common rat, jerboa, skeletons of guinea-pig and rabbit. Skulls of hare and beaver. Hamster, water-vole, banded lemming, pouched rat, field mouse, harvest mouse, field vole.

CABINET G 2.

Mammals.—Buck-billed platypus. Kangaroo or Derbian wallaby. Peba armadillo. Mole. Common Shrew. Bat. Marmoset monkey. Skeleton of mole. Skeleton of musk rat. Skull of peba armadillo. Skull of collie dog. Skull of Natal antelope. Bones of the hand and foot of man. Bones of the fore foot and hind foot of Entellus monkey. Bones of the fore foot and hind foot of cat.

BOTANY.**H. — THE CEREALS.**

1. Collection of twelve kinds of maize in ear or cob. 2. Models
(a) Inflorescence of wheat. (b) Grain of wheat. (c) Growing embryo.

H 1. — DISPERSION OF SEED.

1. Several English fruits and seeds specially adapted for flight.
2. Foreign examples, including the Rose of Jericho, the "balle de soie," the "horned nut."

H 2. — MISCELLANEOUS FRUITS.

These are nearly all foreign, and include: the loofah fruits, Christ's thorn, the poison ivy, "silk cotton," winter cherry, cotton fruit, mango, eucalyptus, and acorns of seven species of oak.

H 3. — VARIOUS VEGETABLE PRODUCTS.

1. Many leguminous fruits, including the great pods of Poinciana, Cassia (the pudding-pipe tree), etc.
2. Oils, dyes, gums, and spices.
3. Processes of sugar and cocoa making.

H 4. — GYMNOSPERMS: CONIFERS.

1. A large collection of very fine pine and fir cones, including cedar (three kinds), *Pinus Lambertina*, *Pinus Sabiniana*, fruits of Cycads and the maiden-hair tree.

H 5. — PALM FRUITS.

1. Various palm fruits: *Chamaerops excelsa*, the sea coco-nut, the largest fruit known. The common coco-nut as grown.
2. Brazil nuts in pod.
3. Calabash or *Lagenaria* fruit.
4. Vegetable ivory.

H 6. — MODELS AND PLATES.

1. Models of: (a) Pea flower. (b) Pea pod. (c) Head of daisy
2. Jung's wall plates of flowers and plants of strawberry, pear, potato, hazel, rye, etc.

H 7. — BRITISH TREES.

1. Permanent photographs of several British trees mounted for display in frame, including oak, ash, pine, cedar, sycamore, beech, birch, all having some additional detail as flowers, leaves, or fruit specially treated.
2. Frame to display the plates as above.

H 8. — MODELS AND MICROSCOPE.

1. Models—large size, to take to pieces: (a) Acorn. (b) Portion of tree trunk showing wood structure.
2. Cork, and birch bark.
3. Mistletoe on apple stem (section).
4. Microscope: Beck's Star, with one eyepiece and two objectives, 1 in. and $\frac{1}{4}$ in.
5. Slides: starch, cuticle of leaf, T.S. of stem, L.S. of rhubarb, pollen of sunflower, etc.
6. Various woods.

H 9. — RUBBER AND FIBRE.

1. Specimens of raw and manufactured caoutchouc.
2. Specimens of gutta percha.
3. Flax, jute, and hemp. Specimens in different stages of manufacture and finished products.

H 10.—WOOD AND PAPER.

1. A large collection of wood specimens. 2. Materials used in paper making and various stages in the process.

MINERALS.

CABINET J.

Tray 1 contains ores of the metal of chief importance to Sheffield—iron. Tray 2 contains ores and metals used in the Arts and Manufactures. Tray 3 illustrates the different forms of the most abundant oxide in the earth's crust—Silica. Tray 4 illustrates the simple crystal forms assumed by minerals.

CABINET J 1.

Coal Cabinet.—Fossils from the coal measures to prove the vegetable origin of coal; Stages in the alteration of vegetable matter—peat, lignite, brown coal, ordinary house coal, cannel, jet, anthracite, and graphite; Specimens used in manufacture and purification of coal gas products from ammoniacal liquor, and distillation from tar.

ROCKS.

CABINET J 2.

Aqueous Rocks—

- Tray 1.—Sand and pebble rocks : siliceous.
 „ 2.—Mud, clay, shale and slate rocks : argillaceous.
 „ 3.—Chalk and limestone rocks : calcareous.
 „ 4.—Series to illustrate chemically formed rocks.
 Do. do. organically do.
 Do. do. colour in rocks.

MANUFACTURES.

CABINET K.

Illustrations of the processes in the manufacture of Files and Scissors, presented by J. C. Wing, Esq. Needles. Application of Pearl, presented by J. Y. Cowlishaw, Esq.

CABINET L.

Electro-plating, with the ores and metals used in the production of nickel-silver and britannia metal, presented by Messrs. James Dixon and Sons.

CABINET M.

The manufacture of a pocket-knife, the specimens presented by J. C. Wing, Esq. (Messrs. George Wostenholm and Son, Ltd.).

ART FOLIOS.

A.—ROME.

The Claudian Aqueduct. Arch of Constantine. Relief (Arch of Titus).—The Spoils of the Temple. Relief (Arch of Titus).—Titus crowned by Victory. Triumphant Arch of Titus. Statue of Marcus Aurelius. Pantheon, outside. Pantheon, inside. Colosseum, outside. Colosseum, inside. The Forum. Arch of Severus. Ponte Rotto and the Baths of Caracalla. Piazza Colonna.

B.—FLORENCE.

The Cathedral. Campanile Tower. Baptistery. Bronze Gate of Baptistery. Monument of William, Duke of Nemours (Michael Angelo). David (Michael Angelo). Virgin and Child with Angels (Botticelli). Virgin and Child with St. Elizabeth and St. John (Andrea del Sarto). Virgin and Child (Fra Angelico). Il crepuscolo (from the monument of Lorenzo de Medici). Il pensiero (from ditto).

C.—POMPEII.

Amphitheatre. Street of Abundance. Fountain. Doorway of House of Pansa. Mills. Keys, Scales, etc., from Naples Museum (various views). Villa of Diomed. Herculaneum. Gate. Mosaic. Alexander the Great defeating Darius. Hermes resting. Bronze Statue.

D.—VENICE.

Grand Canal with Rialto. Piazza san Marco, looking west. Ditto, looking east. Ducal Palace, St. Mark's W. Front. Molo, Ducal Palace, Bridge of Sighs. Bridge of Sighs. Fisherman giving St. Mark's ring to the Doge (Paris Bardone). Miraculous recovery of relic of true cross (Gentile Bellini). Angel from Presentation in the Temple (Carpaccio). Assumption of Virgin (Titian).

E.—BRITISH ABBEYS.

Fountains—The Nave (E. End), The Nave (looking W.), Kirkstall (Exterior from S.E.). Kirkstall (distant view). Melrose. Valle Crucis. Much Wenlock. Lanercost. Rievaulx. Westminster. Bolton. Whitby.

F.—CASTLES.

Windsor Castle—St. George's Chapel, General View from Eton Bridge. The Upper Ward. Tower of London—The Crown Jewels, General View, White Tower, Bloody Tower, and Wakefield Tower. Warwick Castle—View from River. Kenilworth Castle—Cæsar's Tower. Conway Castle and Bridge. Durham—Castle Yard (Stonehenge). Alnwick. Edinburgh. Stirling.

G 1.—CATHEDRALS.

Durham, Exterior—The Nave, The Galilee, Cloisters. Salisbury, Exterior—West Front, The Choir, Cloisters. York, Exterior—Nave. Gloucester, Exterior—S. Porch, Cloisters. Sherborne Minster, Interior. St. Paul's, Exterior—W. Front, S. Transept. Southwell, Interior.

G 2.—CATHEDRALS.

Peterborough—W. Front, Nave, Fan Tracery Vaulting, Ceiling of Central Tower. Lincoln, Exterior—S. E. Portal, W. Doorway, Choir. Carlisle—Choir. Exeter—W. Front, Transeptal Tower, Choir. Westminster, Exterior—Henry VII. Chapel. Ditto, Interior. Queen Elizabeth's Tomb. St. Stephen's, Walbrook—Interior. Norwich.

G 3.—CATHEDRALS.

Christ Church, Oxford—Exterior, Interior, Ground Plan, Details. Rochester, Exterior—Nave. Iffley Church, Exterior. Wells, Exterior—Choir, W. Front, Bishop's Palace. Canterbury, Exterior—S.E. Transept, Norman Staircase, Chapter House. St. Bride's, Interior. Beverley Minster.

G 4.—CATHEDRAIS.

Ely—Exterior from N.E., Exterior from S.E., W. Front Octagon and Transept, Chantry of Bishop West, W. Transept, W. Tower, Choir. Chester—South Porch. Exeter—Choir Stalls. Lichfield, Exterior—Central West Porch, Choir. St. George's, Windsor, Interior.

H.—CAMBRIDGE.

Senate House. Trinity College. Neville's Court. Old and New St. John's. Trinity College. Great Gateway. Trinity College Chapel. Jesus College. Gateway. St. John's College. 2nd Court. St. John's College, Combination Room, King's College, Chapel.—Ditto, the Nave.—Ditto, West End of Chapel and Lawn. St. John's College, Hall.

I.—OXFORD.

Christ Church College. Christ Church Staircase. All Soul's College and St. Mary's Church. Porch of St. Mary's Church. Bodleian Library. St. John's College and Garden. Radcliffe Library. Library, Merton College. The Old Schools. Christ Church Cathedral, Interior. Magdalen College. High Street.

J.—BRITISH MUSEUM.

Elgin Marbles. The Parthenon. Acropolis, from E.—Ditto, from W. "Two horsemen" and "Preparing for the procession," from W. frieze of Parthenon. "The priest and priestess" and "Three seated Deities" from E. frieze. Theseus, from E. pediment. Figures, from E. pediment.—Ditto, from W. pediment. Metope—Centaur and Lapith. Strangefield Shield. Apotheosis of Augustus (Cameo). Caryatid from Erechtheum. Sennacherib in his chariot (Slab from Nineveh).

K.—GREAT MEN OF ANTIQUITY.

Æschines. Sophocles. Demosthenes. Mausolus. Julius Cæsar. Marcus Brutus as a boy. Augustus

L.—BRITISH SCHOOL NATIONAL GALLERY.

Reynolds.—Lady Cockburn and Children. Infant Samuel. Heads of Angels. Age of Innocence. Dr. Johnson.

Gainsborough.—Mrs. Siddons. Woody Landscape. Landscape.

Constable.—Valley Farm. The Hay Wain. Flatford Mill.

M.—Continuation of L.

Landseer.—Dignity and Impudence. Alexander and Diogenes. Studies of Lion (2). Shoeing the Bay Mare. (View of Trafalgar Square.)

Turner.—Calais Pier. Ulysses deriding Polyphemus. Fighting Temeraire. Landing of William of Orange. Death of Nelson.

N.—NATIONAL GALLERY.

Raphael.—Portrait of Julius II. St. Catherine. Ansidei Madonna. Titian.—Bacchus and Ariadne. The Holy Family. Botticelli.—The Nativity. Lippi.—The Annunciation. Bellini.—The Doge Leonardo. Luini.—Christ and the doctors. Veronese.—Alexander and Darius. Perugino.—Virgin and Child. Andrea del Sarto.—His own portrait.

O.—NATIONAL GALLERY.

Rembrandt.—Portrait of a woman. A Jewish Rabbi. Portrait of himself. *Velasquez*.—Philip IV. Philip IV. hunting. *Rubens*.—The Chapeau de paille. *Holbrin*.—The Ambassadors. *Van Dyck*.—Charles I. *Champaigne*.—Richelieu. *Murillo*.—The Holy Family.

P.—1 VOLUME.

Reproductions of Holbein's illustrious personages of the Court of Henry VIII.

Q.—1 LARGE VOLUME.

Skelton's Royal House of Stuart, illustrated by a series of forty plates in colours, drawn from relics of the Stuarts.

R.—SERIES OF PICTURES. HISTORY OF CIVILISATION.

Homestead at the beginning of civilization. Charlemagne's Tribunal, 8th century. In the Cloister yard, 10th century. Feudal Castle, 13th century. A Tournament, Baronial Hall, 13th century. Siege of a City, 14th century. Interior of a Town, 15th century. Enlisting Soldiers, A Citizen's Parlour, 16th century. Camp Life, 17th century. High Life, 18th century.

S.—ENGLISH HOUSES.

Hatfield—Marble Gallery. Garden Front. Detail of Garden Front. East Front. Dining Hall. King James' Room. Principal Staircase. Chimney Piece. *Edinburgh*—Heriot's Hospital. Ditto, The Courtyard. Holyrood Palace. *Chester*—Bishop Lloyd's House. Old Timber House. *Somerset House*. *Hampton Court*—Entrance Front. Entrance Court. Great Hall. *Haddon Hall*—East Front. *Hardwick Hall*—Garden Front. Chimney Piece in Hall. *Shrewsbury*—The Market Hall, Free Library. *Castle Howard*—Garden Front. The Hall. *Stratford*—Old Timber House. *Holland House*—Garden Front. Principal Staircase.

S 1.—ENGLISH HOUSES.

Woolaton Caston—The Hall. Roof of Hall. *Corsham*—Detail of Almshouse. *Much Wenlock*—Assembly Room of Market Hall. *Bramshill*—The Hall. Principal Front. N.W. and Terrace Front. The Gallery. *Aston Hall*—East Front. Ceilings. *Blicking Hall*—Long Gallery. Entrance Front. Garden Front. *Audley End*—The Porch. *Bramall Hall*. *Moreton Old Hall*. *Bolsover Castle*. *Cobham Hall*—Porch in Court. West Front. *Rothwell*—Market House. *Rushton Hall*. *Kirby Hall*.

CASTS OF HISTORICAL MEDALS.

CABINET A.

Tudors—Henry VIII., Thomas Cromwell, Mary, Philip, Elizabeth, Mary Queen of Scots, Earl of Leicester, Edmund Withipoll, Richard Martin.

Stuarts: *James I.*—James, Queen Anne of Denmark, Prince Henry, Gunpowder Plot; *Charles I.*, Scottish Coronation, Declaration of Parliament 1642, Essex, Laud, Sir John Hotham, Charles and Henrietta Maria. *Commonwealth*, Cromwell, Battle of Dunbar, Jno. Lilburn and others. *Charles II.*, Restoration, Popish Plot. *James II.*, Coronation, Death of Monmouth, Trial of Seven Bishops, Flight of James.

Stuart Family—James the Elder Pretender, Princess Clementina, Henry, Duke of York, Cardinal.

CABINET B.

William and Mary—Destruction of R. Catholic Chapels in London, Fight off Beachy Head, Battle of Aghrim.

Ann—Blenheim, Oudenarde, Almenara, Saragoza, Peace of Utrecht, Eugene, Marlborough, Queen Anne's Bounty, *George I.* Proclamation Medal, Dean Swift, *George II.*, George and Queen Caroline, Dettingen, Culloden, Carteret, Chesterfield.

George III. and later—George and Queen Charlotte, Capt. Cook's Second Voyage, General Elliott, Lord Howe, Peninsular War, Egyptian Campaign, Waterloo Medal, Fox, Wilberforce, First Chinese War, Second Burmese War, Campaign in South Africa, Arctic Discoveries.

GEOGRAPHICAL SERIES.

This includes a fairly complete set of the Ordnance maps of the Sheffield District on various scales; Geological maps; Admiralty charts, specimen Orographical maps, and a few Foreign maps.

A.—French Maps in Case; Cartes Murales, Vidal—La Blache. Mounted on cardboard, two on each:—Cours d'eau. Départements. Agriculture, Industrie. Planisphère. French Colonies. Antilles, New Calédonie, Guyane. Afrique Occidentale.

B.—Portfolio of Maps of Ordnance Survey:—Thirty-eight sheets in all, chiefly of the West Riding and Derbyshire; scale generally 25in. to mile; one Yorkshire geological sheet, one geological sheet printed in colours; a characteristic book of Ordnance Survey.

C.—Wall Maps and Charts:—Charts of Wash, English Channel, Irish Channel, Entrance to Humber, Scarborough, Flamboro' Head to Hartlepool, Entrance to Thames, Blakeney to Flamboro' Head, N. Atlantic. Chart of World Tracks of Smaller Vessels, Ditto Full-powered Steam Vessels. Coaling Stations and Telegraph Chart. Maps—Dominion of Canada. Map of Asia (Ethnographical). Ditto (Stanford's Orographical). British Isles (Stanford's Orographical). Pacific, Atlantic, and Indian Oceans (mean directions and velocities of Streams and Currents).

STEREOSCOPIC VIEWS.

30 CARDS OF EACH SUBJECT.

PHYSICAL GEOGRAPHY.

CABINET I.

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| 1. (a) Coast. | Christiania Fjord, Norway. |
| 1. (b) | Full Moon. |
| 2. (a) Hill. | Looking into Orange Free State. |
| 2. (b) Mountain. | The Suldén-Spitze, Tyrol, Austria. |
| 3. (a) River and Dam. | Great Dam across the Nile at Assuan. |
| 3. (b) Swamp. | And the Palm Tree nodded to the Mirror in the Jungle. |
| 4. (a) Pass. | The Stelvio Pass, Tyrol, Austria. |

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| 4. (b) Cañon. | Down the Cañon from the brink of the Great Falls, Yellowstone Park, U.S.A. |
| 5. (a) Gorge. | The Whirlpool Rapids, Niagara Falls. |
| 5. (b) Gorge (being formed). | Tireless Niagara—Horseshoe Falls from above. |
| 6. (a) Stalactites. | Caves of Bellamar, near Matanzas, Cuba. |
| 6. (b) Wilderness. | Picturesque Palestine, Wilderness of the Scapegoat, Judea. |
| 7. (a) Glacier. | A Remnant of the Glacial Period, Mer de Glace, Grandes Jorasses, Alps. |
| 7. (b) Glacier. | Huge Ice River—Fiescher Glacier and Oberaarnhorn, N.E., from the Eggishorn, Switzerland. |
| 8. (a) Glacier (Ice Fall). | Great Ice Fall at the end of the Mer de Glace, Alps. |
| 8. (b) Glacier (Iceberg). | The Whalers, "Diana" and "Nova Zembla," cruising in the Arctic regions. |
| 9. (a) Desert. | A Bedouin Village on the Libyan Desert, Africa. |
| 9. (b) Oasis. | Bishareen home upon the Arabian Desert, Africa. |
| 10. (a) Volcano (Ash Cone). | Home at the foot of the Great Sacred Fujiyama, Japan. |
| 10. (b) Geyser. | "Old Faithful" Geyser in Action. |
| 11. (a) Volcano (Eruption). | Mont Pelee in Eruption, June, 1902, Martinique. |
| 11. (b) Volcano do. | Eruption of Mokuaweoweo Volcano, Hawaii, July, 1899. |
| 12. (a) Lava Field. | In the Wilderness of Lava, Base of Vesuvius, Italy. |
| 12. (b) Basaltic Rocks. | The "Honeycombs," Giants' Causeway, Ireland. |
| 13. (a) Geyser. | "Lone Star," Geyser, Yellowstone Park, U.S.A. |
| 13. (b) Geyser (Mineral Deposit). | Mountain of Petrified Water, Mammoth Springs, Yellowstone Park, U.S.A. |

CABINET 1 A.—30 STEREOSCOPES.

COMMERCIAL GEOGRAPHY.

CABINET 2.

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| 1. (a) Wheatfields. | In the great Cornfields of Eastern Kansas, U.S.A. |
| 1. (b) Cotton Plantation. | "Cotton is King." Plantation Scene, Georgia, U.S.A. |
| 2. (a) Tobacco Plantation. | Cutting Tobacco—A Typical Plantation—Province of Havana, Cuba. |
| 2. (b) Tropical Fruit. | Bananas as they grow—Hawaiian Islands. |

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| 3. (a) Tropical Fruit. | Amidst the charms of Porto Rico,
Pineapples in the fields of
Mayaguez. |
| 3. (b) Tea Plantation. | Picking the famous Uji Tea, near
Kyoto, Japan. |
| 4. (a) Coal Mining. | Mining Coal three miles under-
ground, Pennsylvania, U.S.A. |
| 4. (b) Rice Farming. | Filipino Farming Scene, Rice field
and Water Buffalo. |
| 5. (a) Salmon Fishing. | Seining Chenook Salmon, Colum-
bia River, Oregon. |
| 5. (b) Salt Fields. | Overlooking famous Salt Fields of
Solinen, Russia. (20,000 tons
of salt). |

CABINET 2 A.—30 STEREOSCOPES.

LANTERN SLIDES.

HISTORICAL :

Early British and Saxon, 32 slides, with reading.
Pre-Roman, 34 slides.
Norman, 31 slides.
Plantagenet, 32 slides.
Tudor, 34 slides.
Stuarts, 34 slides.
Later Stuarts, 36 slides.
The Hanoverian, 34 slides.
Victorian, 19 slides.

GEOGRAPHICAL :

England (North), 33 slides.
England (Southern Counties), 26 slides.
London, 30 slides, with part reading.
Yorkshire, 30 slides, with reading.
Neighbourhood of Sheffield, 30 slides, with part reading.
Scotland, 35 slides.
Ireland, 30 slides.
Holland and Belgium, 32 slides, with part reading.
France, 30 slides, with reading.
Italy—Northern Cities, 36 slides, with reading.
Italy—Rome and Southern Cities, 37 slides, with reading.
Greece, 37 slides, with part reading.
Switzerland, 29 slides.
Scandinavia, 30 slides.
Canada, 36 slides.
India : The Ganges, 31 slides.
Southern India, 31 slides.
India : Bombay, 30 slides.
Australia, 33 slides, with reading.
New Zealand, 32 slides, with reading.
A Thousand Miles up the Nile, 30 slides, with reading.
South Africa, 32 slides, with reading.
Modern Egypt, 28 slides, with reading.
Central Africa, 29 slides, with reading.
"Nipon," Japanese Life and Scenery, 31 slides, with reading.

DISCUSSION

On Mr. BOLTON's paper (*Journal*, March, 1908, vol. 7, pp. 299-302), and Mr. HOWARTH's paper above.

Mr. WOOLNOUGH: We are indebted to Mr. Bolton for bringing this question of school museums before us. His condemnation of the system and of the present state of things is largely justified. You may go into many schools and see cases containing a confused mingling of specimens that should be kept entirely separate. I had an opportunity lately of inspecting a new school, and one of the rooms labelled "museum" simply contained one glass case with a most confused lot of things. This was all they had in the way of a museum. The question is, how is it possible to improve this style of things? I have found the school teachers rather resent any advice or suggestions from curators, but some of them do not. There is no doubt the curator is the best person to help the teacher in the arrangement of the school museum. The next best thing is to send collections round to the schools. Mr. Howarth's system must involve a great deal of expense, and I should like to say that that expense is not one which ought to be defrayed by the museums committee but by the education committee. If a grant could be obtained from the education committee for work of this kind, it might be at least an additional help in the museum, which would enable the curator to prepare these collections, and to prepare them in the best possible way. At present they seem to be rather mixed, and I was suggesting that the most valuable way would be for local things only to be dealt with—the geological collection sent round should simply represent the geology of the district, the same with the botany, entomology, &c. Nevertheless, you could go in for a larger radius where you have got a number of duplicates. I should like to ask Mr. Howarth whether they can get any grant from the educational committee or if there are any museums which do obtain a grant from them. Some libraries get a grant from the education committee for the purchase of books on technical subjects? There is another thing, the schools are more and more utilizing the museums by sending up classes to them, and sometimes the curator is asked to lecture to these classes, and much evil is done if the curator is compelled to leave his work and give assistance to the teacher, or if he has to lecture himself it takes up more time still. Then, you cannot possibly allow any teacher to open cases and to handle specimens and pass

them round to the children. This is another thing which shows the want of thorough organisation of educational work in connection with museums. The experience of one or two curators on these points would help those engaged in museum work, and possibly the members of this Association might evolve a scheme which could be laid before the education committee so that things would be reduced to a thoroughly workable system.

Mr. CARRINGTON: We have listened with pleasure to Mr. Bolton's paper. One of the points referred to was the habit of collecting birds' eggs and other nature study specimens and taking them to school for the school museum. In my opinion it affects the children very badly indeed. My experience of children shows me that they vie with each other in possessing the most. Now, it strikes me that if the teachers encourage the children to take the eggs to the school that it is a thing they ought not to do. With us the towns are continually growing, the country is being brought into the market, and the rural districts decreasing, so I think it becomes more necessary to try to protect the birds and feathered tribe generally.

Mr. SHEPPARD: It is deplorable this extermination of some of our wild life, but it is simply due to lack of proper method. Instead of encouraging the collection of plants, it would be much better to encourage the young to watch them growing in the fields as is done in many cases, and the result is beneficial rather than otherwise. In Yorkshire, where this sort of thing is done in a more or less systematic manner, we have the children properly trained, and they are more interested in watching the development than they are in taking possession. In my opinion it is not possible to justify the collection of eggs under any circumstances. No one has greater sympathy for nature study than I have. We have an association established for the purpose of teaching the teachers, and they have excursions into the country. Mr. Howarth's information is very useful. In some cases we may have a certain number of duplicate specimens which we are going to throw away, but these might be sent round to the schools. Something might perhaps be got from the Board of Education towards the cost of these cabinets; and it would be interesting to have information as to the cost of this scheme of cabinets. The school museum question is a very difficult one, and the average teacher cannot be expected to teach the scholars on all subjects. The schools vie with each other in getting

more or less valuable specimens, and sometimes an exceedingly rare thing turns up in these school museums, which some boy's father has got somewhere or other, and I can very easily get it exchanged for something we have a duplicate of in our own museum, and so our museum benefits.

Mr. HOLMSHAW: I have listened with pleasure to Mr. Bolton's paper, and I was very much struck with what Mr. Howarth said. I thought the thing that seemed essential was the transfer of our museums and our free libraries from their present 1d. or 2d. rate into the unlimited exchequer of the education committee. I have no doubt that we all are very much cramped for the want of this necessary money, of which education committees seem to have an unlimited supply. When we recollect that we have only a limited income, and when we see the teacher's salaries go bounding up, I have no doubt that the coffers of the education committee look very tempting. I have often been struck with the manner in which the specimens appear in our school museums. It has been customary to make grants for the provision of the necessary cases, but I think it is a mere waste of money. I have seen specimens of the ores of the district and other things all thrown in together, perhaps without labels, and very often never dusted from one year's end to the other. The children would get a far greater knowledge from the system sketched out by Mr. Howarth. I think something of the nature of peripatetic teachers or science instructors, as they had for other departments of educational work, would be of advantage. And we might teach something of the history of the town, or of the geological strata of the district. In regard to what has been said about nature study and its demoralising effects upon children, I think that is largely due to lack of proper appreciation of nature by the teacher who gives the instruction. I am often struck with this in my walks; I see boys destroying trees, bringing home plants, &c., and they could talk as much as they liked about nature study, but if it did not inculcate a love of nature; it was a waste—a waste of the time of the school and of the scholar. Mr. Howarth mentioned one of our teachers in Sheffield who is a botanist, whom I call a great man, and his instruction in the way of nature study is seen in the way the children behave. If I meet children from that part of the town, and there are many schools in that part, and I see them with glass bottles, I generally say: "What school do you come

from?" This proper method of teaching has a far-reaching effect. I have seen in the school many things taken there, sent by the parents, which were the gift of the boys' fathers.

Prof. GEDDES: I think we must all realise that there has been danger, and that teachers, already overworked in the traditional school methods and subjects, are not unwilling to teach what they painfully endeavour to get from books. Injury to trees, to birds' nests, is undoubtedly disappearing wherever you have a sympathetic teacher. An association of field naturalists and teachers would be a good combination. In my own case my interest in the open air and wild life was due to my father, who had a keen interest in noticing as he went walking in the country. Lately I was in the most alive university in the United States, and from this little centre is coming more influence than, I venture to say, is coming from any other university. I refer to Worcester, and the professor of natural science there is a genius. There had been only one case of injury to trees, &c., brought to the notice of the university within recent years. Get a boy into a workshop of his own and his mischief making will cease; or give the children school gardens to look after. With regard to school museums Many of you began in this rather confused way yourselves, your specimens were not classified, but they were your own property, and in that sense they had a value which no public or school or any other collection could have. Instinct of proprietorship ought to be respected. Another scheme was to set the children to gather the jetsam off the sea-side, and they thus satisfied their craving of collecting, and were saved from the carrying of birds' nests. Might I not submit that this is an occasion on which a society of this kind might speak with the greatest authority. Masters of the art of public teaching and public exposition, they should help the teachers to disencumber themselves of the enormous tangle of science, and show them how common things in your neighbourhood—things that will do no harm—should be treated. A little leaflet with the authority of this association should be issued, and I am sure the teachers would be good workers for them in a little time.

Mrs. CARLAW MARTIN: I think that the one paper is really the complement of the other. Our present day school museums deserve all the discredit that they have received. They really are not museums at all, but only a collection of objects thrown together by the teacher, without

any method. Under the present school system one can quite understand that museums are not considered a necessary part of our education. I think that it is largely due to the fact that little has been done on these lines. Education really is not found in books alone. I think the education department is quite willing now to recognise the influence of local museums, and has allowed schools and teachers to visit museums in school hours, and that these visits should be counted as school attendances. No one can blame the teachers for not taking the pupils after school hours, because the moment the school doors are closed the teacher feels his duty is done. It is well also to visit the museums, as there you see the relationship of the specimen to the whole life of the museum. I think these practical suggestions would be a step in the right direction, and so in future they would more and more appreciate the museums. In some of our infant class rooms they have live birds, and the children are taught to feed and look after these pets. Our system of education would have greater effect if there was chosen co-operation between the public school, the museum, and the public library, and any movement in this direction would be altogether right. I think that some scheme might be devised by the curators so that the museum would work hand in hand with the teachers, and this would be of the greatest benefit.

Mr. BOLTON replied : With regard to the question of sending round group cases, I feel there is one great danger, the child has no means of refreshing its memory. The mere effect of seeing the specimens in the case will call back to the memory what has been taught. With respect also to the question of schools visiting the museums, in that way also I think there is great danger ; and I will give you an instance of it. A teacher said she would send her whole school to our museum, 40 pupils at a time ; this took a whole week and dislocated my work terribly, whereas a proper demonstration in the school by the teachers would have done everything needful. I think that we shall require to be very careful in the matter, and we must encourage them on right lines or else we shall have an evil development there very speedily. With regard to the influence of the formation of a school museum on the wild life of the district. In Bristol a number of years ago, within 80 yards of my house, we had quite a number of ponds, every one of which was especially rich in pond life. Schools, however, were erected near there ; nature study commenced, and

the children, taking the paths through the fields soon caused absolute destruction to the animal and plant life. The children wish to bring themselves under the notice of the teacher by collecting a large number of specimens and they are proud to see them in the museum. The schoolmaster can help the love of nature if he will learn to take a greater and deeper interest, and by visiting the museum the one specimen there will do instead of six of their own. Perhaps we ought to let it be known upon what lines they are progressing, and with what degree of success. Brief guides could be prepared by the council was one suggestion, and I think that is a most happy one.

Mr. HOWARTH: I feel a temptation to range over a very wide field, but I may leave the matter alone except the points raised more directly on my own paper. The principal one was the expense of these school cabinets. I must apologise for not giving this. As stated, the school museum system in our city arose largely from the Teachers' Guild. I was invited by the Teachers' Guild to come to a conference and discuss the question of school museums. My first task was to go round all the schools with one of the inspectors and inspect the school museums. I prepared one of the cabinets and gave a lantern lesson to the teachers on its use. It was then arranged that the Teachers' Guild should bear the expense of the school cabinets, with the assistance of specimens from the museum. If you are going to give the use of specimens to a school you must not confine yourselves to duplicates, for it is important that the specimens shown to children should be of the best. Some of these cabinets have cost as much as £15, but the average cost is about £5. Mineral cabinets cost very little, about £5 each. I have given as much as £5 for a single specimen, and as long as we got the right thing we always were willing to pay. I have never found my committee refuse to purchase specimens which, after being explained to them, were a necessity in our central or branch museums. With regard to what was said by Mr Bolton in reference to the teachers not being able to use the cabinets, my experience leads me to a quite different conclusion. The children can of course always come to the specimens in the museum. This is a part of museum work which I think is of great importance, and I have never considered it trouble, either to the children or adults. I and my assistant give lectures—the first one occupied two hours. Sometimes they come on a Saturday afternoon. We had a visit from

the employees of a co-operative store—they were all women—and it was exceedingly instructive to meet with these women and to hear what they had to say about the things they saw. Mr. Holmshaw has put his finger on the point—the peripatetic teacher for dealing with the school museum work.

Henry Clifton Sorby, LL.D., F.R.S.

We regret to announce the death of Dr. H. C. Sorby, which took place at his residence, Broomfield, Sheffield, on Monday, March, 9th, 1908. Dr. Sorby was born in Sheffield, on May 26th, 1826, where he received his early education, and as his parents were sufficiently wealthy to leave him free to follow his own pursuits he devoted his future life to scientific investigation untrammelled by any professional or official appointment. His scientific work was first concerned with chemistry, geology, and mineralogy, and its far-reaching value was attested by the grant of the gold medal of the Royal Society, the Wollaston gold medal presented by the Geological Society, and the Boerhaave gold medal from the Dutch Scientific Society. For many years Dr. Sorby spent each summer on his yacht *Glimpse*, where he carried on important biological work, especially relating to the preservation of animals in a natural condition. He also mounted many of these as lantern slides, his results on several occasions being brought before the Museums Association of which he had been a member since 1899. No later than January last a paper by him "On the preservation of Marine animals with their natural colour" was published in the *Journal*. In the last few years of his life, Dr. Sorby was deprived of his physical activity through a series of accidents, though his mental energy never flagged, and he pursued his scientific work to the end. By his will he bequeaths to the art gallery and museum at Sheffield his large series of animals and marine algæ mounted as lantern slides, illustrating the natural history of Kent, Essex, and Suffolk, his gold medals, already referred to, and

such of his pictures, prints, drawings, framed photographs, works of art, china, silver and silver plate, natural history specimens and preparations as are suitable for the purposes of a public art gallery and museum, and also the gold watch made in 1750, worn by him up to the time of his death. To the Sheffield university Dr. Sorby has bequeathed a sum of £10,000 to found a chair of geology, and a further sum of £15,000, through the Royal Society, for original scientific research.

Village Museums and Clubs.

(From the *Yorkshire Post*.)

[This paper is to advocate an old idea in a new form—a club, for the practice of hobbies of an artistic or useful kind, managed by the members, who share the expenses, and are responsible jointly for the credit and benefit of the whole.]

That there is a large amount of unapplied, even unawakened talent, in the quiet, dull villages of these lands is a foregone conclusion. And facts may be adduced in proof thereof. Perhaps the keen alertness of the North-country mechanic and the versatility and ready wit of the city man-in-the-street are but a product, through two or more generations, of the competition called into play by the presence of masses of men, and the necessity of being on full stretch to hold one's own in the battle of life. In the countryman, though the wit may occasionally be slower, it is not smaller. For human energy, being subtle and tough in quality, may be stored up and quiescent; now and then it is applied in a striking or abnormal manner. One aim of the club such as I advocate is to afford an outlet for misapplied or unapplied energy.

Two examples which came recently under my notice show what the busy brain and patient hand may accomplish, although no external fostering influence be at work. Both belong to remote villages in Holderness; each is more than

a dozen miles from a large town, and three or more miles from any railway, though possibly invaded now by the ubiquitous motor. There the voice of the sea croons or booms ever in the ear of the unhasting peasant; the rooks and the seamews utter the unchanged note of their kind as for centuries back; and no other but farmyard sounds intrude upon the stillness, unless, perchance, the siren of some befogged vessel hoots a warning to another.

One lovely summer afternoon I walked out, along the fast receding cliffs of boulder clay, to visit (not for the first time) a private collection of natural history and antiquarian curiosities, which rivals in some respects more than one boasted museum. The originator and proprietor is a man well over seventy, but still eager—keenly alive—with memory, intellect, sight, and strength unimpaired. One should be somewhat familiar with his fine native dialect, or the subtler meaning of his choice descriptions and reminiscences will be lost upon the listener. Two sons, verging on middle life, and a comely daughter share to some extent the old man's enthusiasm, when, as a family, they beguile the long winter evenings by fitting together fragments of ancient urns and pottery and the parts of antlers, or in sorting out, cleaning, labelling, and arranging the treasures. Their nominal occupation is fruit and flower growing, in which they have been very successful.

When my friend remarked, in reference to the specimens:

"But all this costs time and expense, and does not bring grist to the mill," the father, with the fine instinct of the modest gentleman that he is, replied:

"Well, you see, we have other ways of doing that." The comfortable, roomy cottage does not suggest the important museum really belonging to it. Behind, however, a glass annexe has been built up, and again enlarged—a labour of love—for the housing of the "things" that have been found and collected, but which, even so, have overflowed into the garden, and ousted some of the plants from the greenhouse.

There is a glow of happiness and pure pleasure on the face of the old man as he tells how his interest in natural objects was awakened up, forty or fifty years ago, by observing the habits of some West Indian tortoises which had come accidentally into his care. From that time onward, he, and later, his family, watched, noted, and compared; and bit by bit they have built up for themselves, in true scientific fashion, a wealth of knowledge and of material, at which the mere book student stands in respectful admiration.

Of worldly ambition the entire family seems strangely free, and I thought no finer example of the simple life need be sought after. Many an hour is ungrudgingly spent in unpaid labour, searching for "specimens," of which a neighbouring peat-bog has proved a rich treasure-house. Only at the lowest of low tides is it possible to dig there, and all such opportunities are used to the full. The younger men go out with large baskets or bags, and big wooden spades, made for the purpose, because metal ones might damage brittle bones and pottery. It was interesting to hear them tell of the difficulties overcome in unearthing and carrying home unbroken a magnificent pair of antlers of *Megaceros hibernicus*, the Irish elk, as well as very heavy parts of other gigantic skeletons which are all relegated to their proper periods and places. Toil and time, which both spell sacrifice, have not been spared in collecting and arranging fossils, rock specimens and minerals, a few very precious stones, flint and bronze implements, and coins—British, Roman, even Greek. And associated with each treasure there is its particular history which gives equal pleasure in the hearing and the telling.

The second museum is some twenty miles from the former, further south on the same coast. It was collected by an old man, once a sailor, then a publican, who is now leading a quiet life among his pets and playthings. These he has brought together from many sources and from many lands. There are birds, beautifully stuffed, some foreign and rare, some homely and familiar; birds' eggs, insects,

and butterflies, curious pictures and ornaments fashioned from wood, from bits of cork, acorns, beech mast, shells, fish-bones, fish-scales, and even from human hair and the parings of finger-nails.

There are models of many sorts, quaint, and in some cases working ; there are flowers, picture frames, musical toys—many things whose only charm lies in the fact that the making of them transmuted numberless dull moments into happy ones, and fashioned for their maker a beautiful garment of self-respect.

These two museums, though very different in appearance, alike show what individuals can accomplish. No money is asked for ; an independent Yorkshireman would as soon ask for alms towards the maintenance of his children.

Is there not presumably a large amount of ability elsewhere running to waste for want of a channel in which to direct it ?

Would not a village club for arts and handicrafts afford a field for original enterprise as well as many prepared paths for less independent minds, whilst those able and willing to be leaders would find plenty of followers ? To do something novel, to do it well, would become village ideals. Surely a succession of benefits would arise, moral, social, and economic. So that the club, rightly worked, would form an anti-public-house attraction, an incentive to thrift, a reason for and means of increased culture and well-being.

Museum Publications.

Belfast.

During 1907 considerable work has been done and progress made. An increased use has been made of the museum, and the large number of visitors for the year (over 198,000) is a proof of the popularity of the institution. One notable feature of the year's work is the formation of a card catalogue of the collections. Over 1,000 cards have already been written, and it is intended that the whole of

the collections should be dealt with in this way. Another specially interesting item of work is the formation of "children's exhibits." A beginning has been made by the installation of two series—"a bird's egg" and "a frog's life." These have received a great deal of attention from young visitors. Labelling has been actively prosecuted. Over 2,000 living wild plants, collected in the district, have been exhibited, and coloured diagrams (in which different colours were used for different parts of the flower and fruit) were employed to point out the character of the commoner orders. Amongst many valuable accessions, the most prominent is Mr. Horner's unique collection of spinning-wheels. This, with most of the important acquisitions, was described in the quarterly publications of the museum which have already been reviewed in this journal. Three exhibitions have been held in the art gallery during the year—(1) the annual exhibition of the drawings of the Royal Institute of British architects (held under the auspices of the Ulster society of architects), (2) the first exhibition of the Ulster arts club, (3) the 26th annual exhibition of the Belfast art society.

Port Elizabeth.

Our readers, having seen Mr. FitzSimmons' article in last month's Journal (page 270-72), will be prepared to hear that 1907 was a year of splendid progress for Port Elizabeth museum. The museum had to be re-organised, the collections re-arranged and the specimens re-labelled. This Mr. FitzSimmons, with the aid of a very small staff, has successfully accomplished. Besides this, he has aroused wide-spread interest in the museum by a lecturing tour in the eastern provinces, by contributions to the public press, and by actively enlisting the sympathy of pupils and teachers in the schools and colleges of the district. A vivarium of live snakes has proved a very attractive object, and it is hoped before long to establish a small zoological garden and aquarium in connection with the museum. It is unfortunate that so active and flourishing

a museum should suffer by being under-staffed and overcrowded. The want of a proper lecture hall is severely felt. This ought not to be the state of affairs in a museum visited by 211,221 people in one year. It is to be hoped that before long the town may have a museum in every respect more worthy of the capital of so large a district.

Maidstone.

The year ending October 31st, 1907, has been one of prosperity and activity. The total attendance at the museum, art gallery, and library has been 103,264, against 96,685 in the previous year; the museum attendance being 29,810 against 28,256—an increase of 1,554. In answer to the appeal for funds towards furnishing the Kent county room, £132 14s. od. has been promised. This is a handsome response, but much more will be needed if the room is to be furnished as it should be. Increasing use is made of the museum; visits by classes of school children and by teachers are frequent, and six lectures have been arranged for the benefit of elementary scholars in the highest standard. Unfortunately the space available is insufficient and many have to be disappointed. A successful series of evening lectures was given in the Bentrif gallery on Wednesdays in the winter; at these the seating accommodation was taxed to its fullest extent. The remainder of the Masham loan collection of Japanese pottery and porcelain has been received, and its arrangement and cataloguing will be proceeded with. Mr. F. W. Rudler has kindly undertaken the arrangement of the mineral collection. Labelling has been pursued with energy; about 200 zoological and 250 geological labels have been prepared, most of them descriptive. A large number of local wild flowers (representing 267 species) were exhibited in the county room. The report contains a reference to the Dundee meeting of the Museums Association, and an appreciative mention of Mr. Maclauchlan's work and lamented death. Mr. Allchin is to be congratulated on the excellent work done in the institution under his care, but we cannot help being struck

by the consideration of how much more might be done if he were provided with a sufficient staff. Maidstone is fortunate in having voluntary help, but no museum ought to depend on such assistance. In every city in which there is a museum the citizens should make it their duty to see that it is provided with an adequate permanent staff. Any volunteer work done is simply to be regarded as so much to the good.

Museumskunde.

Vol. III., part 4, begins with a description of the zoological collections in the National Museum in Darmstadt illustrated by ground plans of the zoological galleries of the whole museum. A separate room is devoted to the Hessian fauna, most of the animals are mounted on plain stands, but a few "groups" are exhibited. The mammalian collection contains, among other notable specimens, a cast of a wolf killed during the fifties, near Lorsch. The anatomy of the domestic cat is illustrated by various preparations as typical of the mammalia. Labels are short and simple, so that case-room may be economised, fuller information is given by pamphlets hung up on the walls near the cases. Dr. John Bottiger and Dr. John Kohler contribute an article on the care of carpets and tapestry. This paper contains the results of some interesting experiments on the use of the vacuum cleaner. The writers find that after a certain number of applications (varying according to the degree of exhaustion and the nature of the material to be operated on) threads are drawn out of the fabric. They also find that harm may be done by the drawing of the mouth-piece across the carpet and they recommend wrapping the mouthpiece in a double thickness of gauze. Dr. Marktanner, dealing with spirit preparations, recommends the removal of discoloured spirit by siphoning it out by means of an india-rubber tube through a 12m.m. hole in the glass cover. He describes a simple form of apparatus for boring holes in glass plates and for grinding them. This apparatus (of which a figure is given) may be worked by a small electro-motor or by a simple form of

water-wheel (actuated by the flow from a water tap) which the writer describes. Dr. Lauffer concludes his series of articles dealing with the historical museum. He advises the division of exhibited objects into eight groups: (1) family antiquities, (2) household objects, (3) regal antiquities (4) antiquities connected with the administration of justice, (5) ecclesiastical objects, (6) secular art, (7) obsolete science apparatus, (8) arms, armour, &c. He strongly advocates devoting a room to each definite group of objects, wherever possible. The writer also pleads eloquently for the "casual visitor," and recommends the publication of general guide-books, simply worded and clearly printed, which would enable him to get a general grasp of the scope of the museum in a single visit. Among the "notices" Mr. E. E. Lowe's practical recipes (contained in the report on the Plymouth museum, 1906-7) are quoted with approval.

In Vol. IV., part 1, Dr. E. von Ubisch, in treating of the two important museum proposals of 1907, takes occasion to call attention to some unsatisfactory features in the present condition of art exhibition and to remind Dresden of her high mission as the mistress and exponent of northern art. To the first of these proposals, Bode's scheme for a museum of old Germanic art, the writer gives a brief but highly eulogistic reference. He devotes his paper mainly to W. von Seidlitz' proposed "Princes' Museum," an historical art museum of all Saxony from the 16th century to the beginning of the 19th. In dealing with this scheme he pleads for a better system of arrangement with a less slavish adherence to technical classification. Art objects should be grouped according to their age rather than to their component material, and the arbitrary line between pure and industrial art should be relaxed. Dr. Koetschau criticises the previous paper on administrative grounds, suggests some amendments which will bring all art institutions—museums and schools—into closer relation, and make their administration easier to carry out. Dr. F. Rathgen contributes an illustrated paper on the treatment of clay tablets, cylinders and sarcophagi. All readers of

"die Konservierung von Alterthumsfunden" (and few museum curators have not read it) will expect an article of great practical value, and they will not be disappointed. The process of firing (sometimes repeated) is followed by removal of incrustations by mechanical means or by soaking either in water or in very dilute hydrochloric acid. In the latter case great caution must be used. This may be followed by treatment with dilute carbonate of ammonia and by coating with paraffin, varnish or zapon. The article should be carefully read by all who have to deal with relics of the kind referred to. Dr. G. von Koch continues his account of the zoological collections in the Darmstadt museum, and devotes an article (illustrated by one plate and six cuts) to a description of the birds. In dealing with these, each family is illustrated by (1) a skeleton (2) mounted birds, (3) a tablet shewing head, foot and wing and other part of special character, (4) a map shewing distribution, (5) selected eggs, (6) a characteristic nest, (7) a few anatomical preparations, models, drawings or photographs. The distribution maps are in "star-projection." For mounting the birds, a cast-iron tripod supporting a rod is used; on the rod is fastened a twig which has been soaked, while fresh, in a dilute solution of sodium arsenate. The problem of labelling sufficiently and in legible type without undue encroachment on exhibition space has been carefully considered. Descriptive pamphlets are hung up close to the cases for reference. Ordinal labels are hung—where possible—at the angle of the case outside; family names, &c., are printed on similar but smaller labels inside the case; individual labels are trapezoidal in shape and have coloured stripes corresponding to the colours on accompanying maps to shew distribution. All these labels give only salient facts and bear numbers referring to the explanatory pamphlets. Dr. Koetschau writes an article on artists, art-historians and museums, with special reference to the Stuttgart gallery. He pays tribute to the excellent work of Konrad Lange—work carried out under great disadvantages—and proceeds

to consider the question whether the director of an art museum should be an art-historian or simply an æsthetic critic. The writer concludes that historical knowledge is indispensable, even where the director has only modern works of art under his care; and this conclusion will command universal consent. A short note is devoted to the consideration of the German museum in Berlin and its relation to the district museums, and the writer deprecates the feelings of rivalry and opposition that exist. The treatment of the question from the provincial point of view seems to us inadequate; we should certainly expect at least some detailed reference to the famous museum in Nuremberg. There is also a brief note advocating the formation of a comprehensive museum of religions in Berlin.

General Notes.

AT HOME.

APPOINTMENTS.—The vacancy caused in the Dundee Libraries, Art Gallery, and Museums by the death of our lamented president, John Maclauchlan, has been filled by the appointment of Mr. A. H. Millar, F.S.A. (Scot.). Mr. Millar who has been many years on the staff of the *Dundee Advertiser*, and is a well known authority on local and county history, took a deep interest in library affairs whilst these institutions were under the care of Mr. Maclauchlan. In his earlier years he had some experience of museum work in connection with the Hunterian Museum in Glasgow.

Mr. R. H. Burne, who has been anatomical assistant in the museum of the Royal College of Surgeons since 1892, has been appointed assistant conservator.

ABROAD.

HANS ANDERSEN MUSEUM, ODENSE, DENMARK.—Two years ago at the centenary celebration of the birth of this writer at Odense it was decided that the town should acquire his house and turn it into a Hans Andersen museum. This has been accomplished and a collection of documents, pictures, &c., was opened to the public on the second of April this year.

OBERSCHLESISCHES MUSEUM IN GLEIWITZ, UPPER SILESIA.—This museum was founded three years ago by the Museums-verein in Gleiwitz, but only now (March 22nd, 1908) has the society become endowed with legal authority and the museum received a solid basis by the plan of erecting a special building. This year's annual meeting was celebrated by a lecture on the first vestiges of culture in Upper Silesia. There are thirteen trustees with Mr. Scholler as honorary curator of the museum.

LANDESMUSEUM DER PROVINZ WESTFALEN.—A new museum has been erected since the year 1904, the inauguration of which took place on March 17th, 1908. It is a monumental building in three stories and 45 metres long. On the ground floor are located the pre-historic collections and the sculptures. On the first floor the applied art collections, and on the second floor the pictures.

NEW ZEALAND—A NEW MUSEUM.—The Manawatu Philosophical Society has just founded a new museum, under the title "Palmerston North Museum." From a report recently issued, we learn that the local borough council "will shortly provide a larger building in which the exhibits will be shown to much better advantage than at present." The favourable way in which the Government of the Dominion regards the educational value of museums, may be gauged from the fact that all goods sent for public exhibition to any museum in the country will be carried free over the government railways.

NEW HAVEN.—The Yale University Museum is now opened to the public on Sunday afternoons and the attendance has fully justified the experiment. It was supposed that at the most there might be some five hundred visitors, but on fine afternoons there have been over two thousand and the week-day attendance has been correspondingly improved. Many important changes have been made in the hall of vertebrate-palæontology—the last specimen put on exhibition being an unusually perfect example of the gigantic sea tortoise, *Archelon*. Two hand books have already been issued—both by Richard S. Lull. Guide number 1 devoted to the Evolution of the Horse Family and Guide number 2 to the Evolution of the Elephant. This last is a very full and important paper of forty-four pages and includes many illustrations and maps of distribution.

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The Museum and the City.

A PRACTICAL PROPOSAL.

By PROFESSOR GEDDES, University College, Dundee.

[Read at the Dundee Conference, 1907.]

AFTER the papers and discussions of this conference, which have been in the main practical in their nature, this is hardly the time and place to raise the theoretic problems with which I am personally for the most part concerned; those of the culture-institutes suitable and needful for our great cities, and the planning of museums upon general principles, here as a mirror of nature, there as an exhibition of industry, of art and so on. For the museum movement is not at present mainly in this phase. Its period of joyous and hopeful initiative is over, that of large plans and of public support which once seemed almost inexhaustible; and we have now in almost every city to face a very different situation, that of an established and tolerably well-defined institution, partly it may be rich, yet certainly also partly poor, in fact with very various advantages and disadvantages; and this generally in face of an older public, whose earlier interest has for the most part become comparatively languid, and of a younger generation whose interest has not yet been adequately aroused.

The questions we have to discuss at this stage of the museum movement are thus very largely of practical policy. How can we bring the right public to the museum? And what can we do to bring the museum more fully and vitally into the life and education of the community?

Curators are at this time mostly suffering from insufficiency of funds adequately to maintain their museums, much less to increase them, and any great popular extension

is therefore in most cases impossible. Yet, may there not be some way of bringing our institutions anew and that freshly and interestingly before the public? We need some method indeed (pardon the modern phrase!) of advertising the museum—of course properly and legitimately, and with due curatorial decorum; and therefore of making them interesting to a larger proportion of the community, and, if possible, to its most active citizens, who at present it must be admitted have now for the most part moved off into quite other lines of action and thought.

I submit that it is practicable to do this; and the suggestive example and illustration I require, is, by good hap, actually here around us, in this very gallery where we are meeting. Many of the curators here present have greater and finer collections than any we can show them in Dundee—more natural history specimens, more antiquities and more treasures of all sorts; all at any rate have seen greater collections of every kind; yet to this there is one specific exception here, one collection necessarily unique—this admirable gallery of Old Dundee, so richly illustrative of this City's history. For here is the past life-work of our leading city antiquary and historian, supplemented by subsequent gifts, loans and purchases; full of interest and value, and this for many periods. At present, however, this exhibit attracts few save our antiquarians, a sadly dwindling class. Yet here before us is our city, plain for all to see, as it was in past centuries, in 1800, 1700, 1600 and yet beyond. Indeed with these materials we can reconstruct some image of what the town was like in earlier ages, back to the primitive Celtic Hill Fort of "Dun-Tay," and thence forward again past its Roman demolition to its Norse reconstruction and its modern name and state.

Now, the value of this collection obviously depends upon each of its exhibits having had actuality in its own day; it is its authenticity which gives it interest. But why should not this collection be continued in our own day? Why should we not have an adequate exhibit of this city in the last generation or so, and why not as it was in

1900, as it is in 1907 ? Let us now add this, and so add to our present museum gallery of the city in the past a corresponding exhibit of the city in the present. How can this be done ? Easily. Recall the work of Sir Benjamin Stone and his Photographic Record Association, and see whether we cannot do something of the same for our own city in its every day life ; let us obtain photographs, pictures, engravings ; we shall soon have a really adequate presentment of our city's recent growth, its advantages and disadvantages, its beauties and its ugliness. Let us collect statistics too of the city's life in every shape, vital, industrial, educational, and all else ; let us ransack the Registrar's Office, the Chamber of Commerce, the Town House, the School Board Offices, the College, and the rest, our City Library above all, and so enrich it also. Again, recall Mr. Charles Booth's " Life and Labour in London," with its great map. See the kindred volumes of Rowntree for York, Marr for Manchester, Sherwell for Edinburgh, and so on, indeed also fortunately for Dundee itself, since here a valuable housing and hygiene survey, by Miss Walker and her helpers of the Social Union, has lately been published. We should thus find helpers not only among city departments and special societies, but among all classes of the public. Every active-minded citizen would thus find the museum to be the most accessible and convenient place in the town for getting up all he wants to know about his city's life and affairs ; he would also be aroused to new interests, and learn things he never thought of before. The museum would thus gain two sets of frequenters, some coming to help it to teach, and some to learn ; and all these alike would be new friends, on whose support the curator would soon find he could rely. This single civic gallery would thus soon overflow into a second ; we should have our Gallery of the Past continuing into our Gallery of the Present, a series well worth visiting, and this alternately approached from either end, viewed in its complementary perspectives, that of the past growing into present, and that of the present interpreted by help of the past. Besides the additional

antiquarians whom this active movement, including as it does, extension and improvement of the collection of the past, would have discovered for us, the museum would also have formed a new constituency altogether, picked members of the vast majority whose interests lie essentially in the present. This interest might also be spread more widely, aroused more keenly, by lending space and screens for different special temporary expositions of various features in the city's life, just as at present for temporary art exhibitions. I see no reason why the museum should not be the impartial meeting place in which even the great parties, "Progressives and Moderates," whom we have always with us, should present their differing statistics and policies. Perhaps it may be said this is going too far into practical politics. I do not press it.

Besides the few interested in the past and the many interested in the present, there is another class, small no doubt, yet an increasing one—those who are beginning to dream of their city's Future. They are resolved to see some definite material progress in their town, some actual betterment, and this of many kinds—here the cleansing of its slums, there the erection of new dwellings, new churches, new schools, or other institutions, or again the securing or improvement of open spaces. Above all they are becoming interested in its future extension, its new quarters, its Town-Planning in short. All this is expressible in the museum ; and this not only in plans and elevations, but in interesting sketches, in perspectives too, and even in models, than which few museum objects are of more widely popular general attractiveness. Let us therefore add something of all this to complete our galleries of the past and the present. A third gallery will soon be needed, yet a screen or two will suffice at first for this concrete exhibition of the City's Future. This now will bring to the museum another new class of frequenters and supporters—"Dreamers," "Cranks," "Utopians," perhaps, as they may be called ; but after all, did not our predecessors, the makers of our present museums, receive all these epithets in their

day ? Thus this practical proposal, of legitimately interesting the public by a development of the civic character and possibilities of the museum, would soon be found of value all round, and the museum's endeavours would be approved and supported by all types of mind, by representatives of all classes, all parties. This is well worth doing for its own sake, as I am hopeful most curators agree. Yet even to the curator, who does not particularly care for his city, who is little acquainted with its past or awakened to its present, and who may not as yet have considered its future, who is absorbed in his strictly scientific collections, or his artistic and literary treasures, may still find this proposal worth consideration. He will feel its interest too soon as he undertakes it. Let me plead then, from each and all that this proposal be given a trial. The time is favourable for it. Our towns are beginning to stir, their awakening towards citizenship is at hand, so let us help it and further make our town's museum more of a Civic one.

NOTE 1.—The preceding proposal was warmly approved by the President of the Congress, and was raised by him anew, and actively discussed at the special meeting held during the afternoon excursion journey ; a number of curators spoke warmly in its favour, and hopefully of the possibilities of something of the kind being carried out for their own city and museum. Encouraged by this, the writer brought the subject before the Town Planning Congress, held at the Guildhall on October 25th, 1907, at which he was present as a delegate of the Sociological Society. He exhibited town maps showing the growth and extension of our modern industrial cities, taking as types (1) The Reform Bill Atlases of the English and Scottish towns, in 1832 ; comparing with these (2) The maps of the same towns a generation later in 1860-70, when the industrial expansion was in full swing ; again (3) The maps of our towns at present. Thus the expansion of the past two generations was vividly presented, and the need of better town-planning was correspondingly emphasised. Finally, it was suggested

that the Congress should not disperse without leaving among its permanent results an impulse towards the formation of a "Cities Survey Committee." This would collect for those interested in the Town-Planning Movement the information, examples, and other materials they often lack, and bring before the public the basis of knowledge which they require ; and it would help towards the better understanding of our cities as well. It would advance public opinion and aid improvement in every city throughout the land, and be of great use to London and its constituent boroughs. Might not the Sociological Society, and other bodies, Geographical, Statistical, Architectural, etc., all become interested in the formation of such a Committee, in which their particular interests would be duly represented, and this in co-operation as far as possible with museum curators and city librarians.

These proposals found cordial approval. A large number of the leading workers and authorities upon Town-Planning and City Improvement at once put down their names as willing to join such a committee.

NOTE II.—This proposed Cities Survey has now been fully discussed by the council of the Sociological Society, who accordingly resolved at their meeting of December, 1907, to form a "Cities Committee, to promote the Survey and Investigation of Cities, and the study of Civics."

This will be concerned with the geographical and historical development of Cities, with their industrial and other present conditions, with their advantages and defects, and with the conditions of their future development.

For this purpose it will endeavour to advance the study of Cities, in the first place by promoting Civic Exhibitions, of plans, pictures, and other illustrative material dealing with past and present conditions, and prospective betterment. For this purpose it will communicate with members in other cities, including the various constituent cities and boroughs of London, and with Curators of Museums, Librarians,

Directors of Schools of Art, and others likely to be interested, who may co-operate, thus act as sub-committees, correspondents, etc.

It will seek to promote the formation of Civic Museums, and to advance the teaching of civic history and duties independently from party politics. It will act with Associations for City Betterment of all kinds, and will also co-operate as far as practicable with the organisers of exhibitions, congresses, pageants, and other endeavours having an educative value towards the awakening of civic consciousness.

This "Cities Committee" has thus entered upon its activities with the present year, 1908; and its scheme of work and actual endeavours will be reported from time to time in the *Sociological Review*, &c. Curators of Museums and others interested, either in the survey of their particular town or city, or in the investigation as a whole, are accordingly invited to communicate with the Convener, Cities Committee, Sociological Society, 24, Buckingham Street, Strand, W.C.

NOTE III.—In the preceding connection, the writer's papers on "*Civics as Applied Sociology*" (*Sociological Papers*, Vols. I. II., Macmillan, 1902-4), and especially on "*Civic Museums*" (*Ibid*, Vol. III.), may be of service.

NOTE IV.—The recent introduction by The Right Hon. John Burns, of the Town Planning Bill gives the preceding suggestions a greater actuality, a more immediate certainty of usefulness than when the above paper was read, and the writer ventures therefore urgently to plead with each curator or librarian who may be interested, that its suggestions be given a trial, and this as speedily as may be. This Bill will also give the Local Government Board power to order a "Local Enquiry," and it is evident that this cannot be made by any of the City's departments or institutions so naturally or so efficiently as by the co-operation of its museum curator and librarian, much as

indicated above. Urgent appeals are indeed being already made for the addition to the Bill in Committee of a Schedule giving particulars of the nature of this local enquiry, and pressing the usefulness of accumulating the materials for this, by holding such an Exhibition in each of our leading Towns and Cities, of its Past, Present, and Future, as is above argued for before the preparation of the Town Planning Scheme is gone into by the local authority, since they would then be able to do its work with doubled efficiency, and diminished error. Thus what was but an academic suggestion, or at most a congress discussion, last summer, has already become a matter of practical politics; and to carry it out, even in the most modest and preliminary scale, may bear fruit in a more immediate future than lately seemed possible. See in this connection also "*Garden Cities*" for May, 1908, with the writer's fuller insistence of the need for efficient Town Planning of the "Local Enquiry" above referred to, a Local Enquiry which can only be efficient in proportion as it makes that survey of the City's Past, Present, and possible Future above pleaded for.

NOTE V—Next an example may be submitted of how this civic and educational process may be not only pleaded for to the museum curator and the librarian, but actively co-operated in by the teacher, academic and other. Hence the accompanying lecture syllabus may be appended, since this is directly and even locally associated with the preceding paper. The course it outlines is in fact, concerned with the preparation of actual exhibits, plans, perspectives, etc., of suggested improvements, of which several have been already publicly exhibited, and others may hope to be.

BONNIE DUNDEE.

A STUDY OF POSSIBLE IMPROVEMENTS.

EVENING COURSE OF SIX LECTURES, with Five (or more) Excursions.
By Professor GEDDES, University College.

OUTLINE SYLLABUS OF THE COURSE.

- I Streets and Open Spaces; Tree Planting and "Arbor Day."
The coming movement of Occupational Education.

2. School Gardens ; Open Air Schools ; Mountain, Forest, Farm, and Seaside Schools, etc. Lay Teachers.
3. Home Gardens and Allotments—their educational and social influences.
4. Public Parks and Gardens. Needed Winter Garden and Botanic Garden. Significance and educational possibilities of these.
5. Monuments and their meanings. Culture Institutes—Museums, Galleries, Libraries, etc.—actual and required. Scientific and other Societies and Associations. Distinction of town and city—of townsman and citizen—of Town Planning and City Design.
6. University and City in association—From “mere Utopia” to Eutopia—however limited.

NOTE VI.—As an illustration of the practical working out of definite suggestions towards the City of the Future, may be mentioned (1) The writer's recent Report to the Dunfermline Carnegie Trust (“City Development” Edinburgh, 1904). (2) The Edinburgh Room of the Outlook Tower with its (a) collections illustrative of Old Edinburgh, (b) present day photographs, etc. (c) Suggested reconstruction of the “Historic Mile,” from Castle to Holyrood, or (3) A more recent proposal for the re-erection of Crosby Hall (Sir Thomas More's London House), on the site of More's Garden at Chelsea. This is of interest not only as a matter of historic association and of collegiate use, but also as a centre in which the construction of Utopias may become better understood ; and this not only as a legitimate field of literary production, but of sociological thought, of public education, and of civic applicability. See “*Chelsea a Collegiate City*.” (Univ. & City Association, Chelsea, 1908.)

DISCUSSION.

MR. MACLAUCHLAN : We owe a debt of gratitude to Professor Geddes for giving us this delightful paper, which has been so completely and eloquently put. The gift of imagination, we are assured, lies with the Celtic race, his and my race. Like myself he is a Celt, born in the highlands of Perthshire, and the imaginative points in his address are due to the strain of Celtic blood in him.

Mr. PLATNAUER : I wish to thank Professor Geddes for drawing attention to a branch of work which has frequently been overlooked in the past. Most of us pay little attention to the future. We might have drawings or photographs of our present jerry built cottages, side by side with cottages such as are built by Messrs. Lever Bros., at reasonable prices, as a standing and tangible stimulus of what might be done. To Professor Geddes' scheme, we ought to give our most earnest attention ; he has given us the germ, and those who would carry this scheme to a practicable result would confer an inestimable boon on their fellow citizens, both now and hereafter.

Mr. BOLTON : In regard to the history of the past, the men who gave us plans of cities, of the costumes of the people, &c., were clearly carrying out the work of which Professor Geddes has spoken. In the following years, as regards Dundee, such a scheme would be all important. Although I have only resided since 1898 in Bristol, in these 9 years I have seen a great number of the historical landmarks disappear, and of their existence no knowledge now remains as to what they were like or what the place was in past history, except more or less shaky traditions. If this work is not carried out now, the generations of the future will be in the same predicament. I, for one, welcome the idea most heartily, and the sooner this is done the better for the future.

Dr. HOYLE : I desire to associate myself with these gentlemen who have spoken, in expressing my very high opinion of the contribution which Professor Geddes gave to our proceedings. I desire to point out one or two things which occur to me in regard to the possibilities in this direction. In the first place, I should like to call attention to a very interesting thing which is to be seen in the Liverpool Museum. That is a model of the city, constructed with all the hills and valleys shown, as it was 150 years ago. All the ancient landmarks are shown, the gullies, &c., and this recalls the history of the past. Now, that is a thing which, with a little expenditure of time and money, might be made in every museum in every town, and I am quite sure that it is a thing which would interest the inhabitants of the city themselves, as well as the strangers. There is another reason why Professor Geddes' paper should be taken to heart, because there is nothing so interesting to the citizens as everything regarding that town in which they live. As you know, in my city of Manchester, at present

things are in a rather critical condition. Our old infirmary has been sold to the corporation, and a proposal is made to erect there a large museum of arts in all its departments, and to have a department for what we call "Old Manchester." We must make it also a "Present Manchester," and prepare for a "Future Manchester." I shall carry Professor Geddes' suggestion to Manchester, and try to get my fellow citizens to encourage the microbe which Professor Geddes has generated this morning.

Mr. MAY : In accordance with the suggestion of Professor Geddes, I think we should look to the future and try to amend things and improve upon what we have at present.

Mr. HOWARTH : We have something of the same nature in Sheffield as they have in Liverpool. Twenty years ago the Sheffield corporation had occasion to oppose a Bill of the Water Company, which then had the privilege of supplying the water to Sheffield, and in order to promote their case, the Water Company had made a kind of model of the whole district of Sheffield in great detail, founded chiefly upon the Ordnance Survey maps. When the water undertaking was secured by the corporation, this topographical scale map was placed in the museum. It has been very largely used for a great many different purposes, and it is of immense service and value. We have lately in Sheffield devoted considerable attention to the history of Sheffield, and we have now plans going back nearly 500 years, and views of Sheffield, and various things relating to Sheffield in the past, specially arranged in a branch museum. I should recommend all of you in this way to get together whatever you can relating to the past, for it disappears with painful haste. The Sheffield Castle, famous in history, has left not a single preserved vestige behind, not a single view can we get of it, and this shows you how important it is that such things should be preserved. The object in view should be to demonstrate and illustrate the history, the topography, and above all, the habitations and domestic life of the people.

Mr. MACLAUCHLAN : We in Dundee have what is known as our "Old Dundee" collection, and a very large number of the views of old Dundee were made by very competent artists. At present we are carrying out a photographic survey of Dundee. We got a grant from the town council, but the actual work is done by members of a photographic society gratis, the grant being used for printing the views.

Already we have some 5,000 or 6,000 views. We took all sorts of buildings, dirty closes, &c., and we also took interiors of the houses of the poor and the structures in the slum localities. We had an exhibition of these lately in our galleries, but we could only take a very small proportion of the views printed; they filled one of our largest galleries; and this will be a permanent record of Dundee of the present. We must face the future with its requirements, and that higher standard of life, I therefore listened to Professor Geddes' paper with great interest, and it will assist us to attain that high standard of life when there will be no slums, no dirty lanes or closes, no hooligans and street arabs, and no waifs—when we shall wear spotless robes with palms in our hands.

Thoughts on the Equipment of an Art Gallery and Museum.*

BY W. B. BARTON.

I HAVE been asked to include in my paper some reference to the principles which have guided the selection of the various art treasures placed in the Harris Art Gallery and Museum, Preston, and the results which we hope to attain.

In the picture gallery, the guiding principle of selection was broadly laid down by the committee when, in the early days of their dealing with the problems of equipment, they adopted the recommendation of their chairman, Councillor Hamilton, that they should periodically purchase with the aid of competent expert advice, the best obtainable works by living artists; and the proposer of this policy, now Alderman Hamilton, has, since that time, materially assisted in bringing about its large results.

It is hardly necessary to say that no attempt was made at the outset to pre-determine the order (with regard to class), in which the pictures should be acquired. Individual views would naturally be held at purchasing times as to

* Read at a Conference at the Harris Museum, Preston, 11th April. 1908.

what kind of picture should form the next acquisition, and the professional adviser of the committee would probably have had on each of these occasions some predilections of his own, based on his knowledge of what was already represented or not represented in the collection which he was helping to form, but having pledged himself to recommend only the best obtainable work, he had, to quote Mrs. Beeton, "to catch his hare before cooking it," and found in practice that his choice had rather to be governed by circumstances than by predilection. Time, however, may be trusted in the long run to restore the balance of subject, and it would surely be folly to obtain a mere temporary satisfaction at the expense of quality. A recent lecturer in this room, well observed that if one would not misjudge the work of nature, one should pit the centuries against the hours; and the same advice, in a smaller degree is applicable to those who would hurry the formation of a picture gallery.

The scope of one's scheme must, of course, depend upon circumstances. One of these is the available amount of wall space; and though our gallery is larger than many others, we have to bear its limitations in mind. A gallery so important in size as to be independent of this consideration should aim, finally, at continuity; by which I mean that historical development should be adequately illustrated, with due emphasising of its more interesting phases. The gaps in this continuity necessarily existing in any gallery, during the long and irregular process of its formation, may be temporarily filled by reproductions, such as those on our staircase, and as the Arundel series. By means of such reproductions we may provide at least an introduction to the Old Masters, whose original works are beyond our reach.

Well chosen photographic reproductions will give with much fidelity, many of the qualities of the original pictures, though of course, they miss the cardinal attraction of colour. I may remark, by the way, that it is not unprofitable to listen to the comments of the man in the street. He, as one of the community at large, has his share in the ownership

of the gallery, and naturally has his say as to what would give him pleasure in it. The guardians of his welfare in this matter, must however see that it shall be educative pleasure with which he is provided, though the level of his taste may sometimes make it difficult to ensure that (for him), the words education and pleasure shall be synonymous. He stands somewhat in the position of a client, whom one should both consult and guide.

As far as it is attainable, an all-round interest of subject and style should be maintained, therefore, a public gallery should be carefully guarded from any exclusive tendencies which are not healthily free from prejudice. Dogmatism will be found in art as elsewhere, but when doctors differ, patients may go free, and each cultivated mind should be enabled to find a feast somewhere amongst the treasures of the gallery.

The noble thought of a Pre-Raphaelite, expressed in bright colour and infinite detail, the revellings of Corot in soft twilight; the sweet and low tones of a "nocturne," by Whistler; the brilliant picturing of sunlight by means of separate touches of pure colour laid side by side by the luminist; will each find their worshippers, and that paragon of Huxley's who knows "something about everything, and everything about something" will sympathise more or less with them all.

There is a proverb about a gift horse which the controlling authorities should most conscientiously ignore. On rare occasions, galleries are enriched by valuable gifts, and it would be the height of ingratitude if we in Preston should forget that we are incalculably indebted to the donors of such gifts, but how often these windfalls make one cry, "Heaven save us from our friends." The administration should steel their hearts on all occasions against every claim but that of merit, but donations are apt to advance such insidious claims to be accepted, that the defensive armour needs to be of chilled steel in their case.

The size of a picture and its reference to the floor space should be borne in mind. Large pictures, containing

definite forms, such as those of buildings, are quite perverted in perspective, if insufficient floor space prevent their being seen from the proper standpoint. Certain spectators are quite indifferent enough to this consideration without being absolutely forced to ignore it. One sometimes finds them instead of studying the beauties of a work from the natural standpoint, spending their efforts in finding out such strange facts as that an outward bound ship in a picture sails in one direction when viewed from the left of the frame, and in a more or less opposite direction if viewed from the right ; or that the eyes of a portrait have the fascinating property of following the observer around the room. Wherefore in their innocent love for a curiosity, they imagine these optical effects of a false point of view to have been striven for and obtained by the sheer genius of the painter. Again, in the case of an impressionist's work, one must be able to retreat to the position in which the separate prismatic touches will be re-blent in the spectator's eye, into the colour which they composed when united in the sunbeam.

I trust that our objective is, in the main, the one which actuates all good gallery administrations, and such being the case, much of that which I say with regard to our aspirations will necessarily have a general rather than a local bearing. Perhaps I may best indicate our aims by discussing certain popular misconceptions as to the functions of art, and thereby show the directions in which one feels that education is needed.

Most people have, I suppose, in some degree an ear for music, but comparatively few of them know how much it might be cultivated. Most people also have, I believe, in a greater or lesser degree, an eye for the harmonies of form and colour, but there is, I feel sure, even less attempt to develop this faculty, than there is to cultivate what may be called the artistic side of the sense of hearing. If this be true, there is a large field of work for those who would strive to develop and cultivate, by the influence of true examples of art, the sensibility of the eye to the harmonies

of colour which are latent in light, so that those in whom this sense is now dormant, may learn to find a subtler and deeper pleasure in a picture than that afforded by the mere recognition of the point of some story which forms its subject.

It is a fact that many people can hardly be made to realize that art has such a *raison d'être* of its own. At the Liverpool Art Congress, in 1889, Sir Frederick Leighton said there is a class of people whose lack of artistic feeling is manifested by the fact that they look at a picture as though it were only another kind of reading, though it is given to form and colour to elicit in men powerful and exquisite emotions to which they alone have the key. The people whom Sir Frederick had in view would probably retort, "Why cannot we have good colour, good form, and a good story all on one canvas?" We can imagine Sir Frederick replying "Unless the story lend itself to artistic treatment in paint, it can only make a bad work of art." Sir Frederick himself generally painted classical subjects, in which the chief elements were the nude and the draped human form. The former, owing to its grace and possibilities of pose, is always a potential element of beauty in a picture, whilst drapery, owing to its adaptability to any desired disposition, affords opportunities of furthering and massing harmonious arrangement and colour. Moreover, the incident built up by him of these facile materials, was represented as occurring in suitably devised ideal surroundings of landscape or architecture, so that everything was according to his own sweet will, and his story never fettered his art by opposing, with any independent demand, the realisation of his cherished scheme of form and colour.

The theory involved in this practice is that the art of the painter reveals itself in its highest form when all its resources are concentrated upon an appeal to the mysterious and subtle perceptions belonging to the special sense whose keyboard so to speak, is the retina; and that to make a separate appeal at the same time by means of a story to the logical and reflective faculties has the danger of alienating

the attention. Though this gives a useful caution, one would be a purist of a very impracticable kind, who, on such grounds, vetoed the use in a gallery of really good story pictures. Unfortunately, the painter of "pot boilers" knows the popularity of story pictures, and the way in which they take their captives by first impression; and he little cares that, unlike things of beauty, they are not "a joy for ever," but tend to pall when the incidents of the story everlastingly reiterate themselves to the eye. What may be called the inarticulate beauty of harmonious colour, tone, and composition, is not so easily fathomed by a cursory view, though its beauty will gradually filter into the dull eye and charm with ever-growing power. The moral is—be careful in choosing your topical pictures, and see that they possess intrinsic beauty, or your hand will be forced by the injudicious legion of their admirers.

Nor does one, on the other hand, desire to show nothing but what are called "artists' pictures." A musician may prefer a symphony to a song, but the singer of a fine ballad knows something is gained when she "lends to the rhyme of the poet" the beauty of her voice. A pictorial parallel to this is afforded by Watts's picture "*Sic transit gloria mundi*," which preaches a fine sermon with no detriment to its merit as a work of art.

Sir Joshua Reynolds reminded us that the artist must always hold a balance in his hands, and such is also the case with all who would base the purchase of pictures on their merit. A picture may satisfy every technical demand, and yet miss that "*je ne sais quoi*" without which it is nothing worth;—and on the other hand, one may find a work palpably defective in some point of technique, which is nevertheless so superlatively good in other ways, that it is a veritable treasure, not to be missed from the gallery, if it be obtainable. Therefore, it all comes to this in the end, that each picture must be judged on the over-balance of its merits when weighed against its shortcomings.

I must now transfer my attention to the art museum. There is the long range of work known variously as

decorative art, applied art, industrial art, arts and crafts, &c., &c., from which exhibits may be drawn for this section, but unless there be an unusual amount of space available, this field of subject is too wide to be dealt with in one building. A good way out of the difficulty would be to divide the duty of dealing with it between two separate museums, one being such as our own, and the other attached to the technical school of the town concerned.

This technical museum might illustrate those crafts in which technical processes, and the tools and appliances by which they are carried out, may be shown; whilst the other museum would be reserved for those works which, though coming into the category of applied art, are of a precious and delicate character, such as gold and silver-smith's work, enamels, ceramics, lace, &c. If the town be one in which artistic industries are carried on, their products should, of course, be adequately represented, and would be relegated to one or the other museum according to character. For instance, a pottery town could submit an exhibition of modelling and painting of a highly finished and delicate character, whilst, on the other hand, woven fabrics, though admitting the application of very artistic design, demand a great deal of technical explanation relating to the loom, &c., which could be fully dealt with in a museum in conjunction with a technical school. It is in pursuance of this idea that we have somewhat reserved the character of our own exhibits. We have also had to show in the museum many works which belong rather to fine than applied art (such as statuettes), the scale and portability of which makes it necessary to give them the protection of the museum-cases.

The walls of the museum are the natural site for examples of mural decoration and surface decoration generally. There is, however, something unsatisfactory in showing mural decoration in this detached way. The relationship of the decoration as a scheme to the surroundings of the particular building which it was specially designed to adorn, is not demonstrated in the least; on the contrary, each example

is surrounded by a number of other examples which are in its own plight in this respect. This may be, to a large extent, remedied by more or less complete models of the interiors of the original buildings, showing the decoration amidst its proper surroundings. It is true that the scale has to be diminished in these models, and that there are difficulties of lighting to be met, but they are not insuperable. Education in the principles of decorative art is a very important matter, since every one has to consider its application to his own surroundings. It is much better to adopt the one really adequate way of illustrating its principles, namely, applying a scheme to the museum building itself ; and that is the way in which we are endeavouring to deal with the matter.

Alderman Hamilton and I once visited the famous mural painter, Puvis de Chavannes, in reference to the treatment of our walls, in the hope that we might possibly secure his services, but the veteran artist was already feeling that for him life was nearing its end, and that the work which he had undertaken, was probably more than he would ever be able to accomplish. Fortunately, we have since then, been able to secure the help of Mr. Somerscales who has added greatly to the attraction of our central hall by a series of paintings of Greek temples and landscapes, very appropriate to our classic building.

The sculpture collection must necessarily consist largely of casts, in any museum, if it is in any sense to be a representative one. Plaster casts are troublesome in one way, for, although, they look almost angelically pure and white in their early days, they soon get soiled in spite of every protection. Sometimes, the so-called original is a marble copy of an earlier bronze, and then one may legitimately revert to the original material for the cast, and a good bronze cast is practically a permanent facsimile of the original. We have done this in several instances. In dealing with antiques, the claims of chronological order should not be allowed to interfere with the placing of the casts with due regard to light and shade, and to their best

display generally. To spoil the effect for which a sculptor has striven with no better excuse than that of placing his work in its precise order, say, in the evolution of the school of Athens, is surely sacrificing the substance for the shadow, especially as the labels on each example, give precise information as to date, artist, school, &c., for those who are seeking for it. Of course, the historic epochs should be marked broadly by the arrangement. In our building, we have done this by placing the Greek and Græco-Roman work on the upper floors, and the Renaissance on the ground floor. The modern examples of sculpture and relief are original works, and are placed chiefly in the art museum; though our marble bust of Clytie by Mr. G. F. Watts, has its own place of honour at the head of the principal staircase.

There is one class of collector whom we make no attempt to emulate, though he sometimes addresses himself to us, and that is the lover of abnormalities of all kinds. Apropos of this, I may mention an amusing description given in one of our papers a few weeks since, of a museum catalogue which commenced as follows :—" On entering the museum, the visitor's eye will at once be struck by the knob of a porcelain umbrella."

Before concluding, I wish to say how much we are indebted to the authorities of the Victoria and Albert Museum, South Kensington, for most valuable advice and help given from time to time, and I should also mention that we have been very generously treated in the matter of grant in aid by the Board of Education. These circumstances, combined with our good fortune in possessing a sympathetic committee, whose chairman, in particular, has given unceasing personal attention and help in all our undertakings, have enabled us to achieve whatever measure of success has been attained, and last, but not least, wider possibilities have been opened to us by the benefactor whose name our Institution bears, and who so munificently provided us with the sinews of war.

Preserving Plants in Natural Form.

BY S. L. MOSLEY,

MR. DUNLOP'S paper (*Museums Journal*, Vol. 7, p. 303) reminds me that twenty years ago I made similar experiments in drying plants in Calais sand. About this time, or soon after, Mr. English of Epping, published a little booklet on the subject, and still later Mr. Gorge Purbin, of Wakefield, was very successful in drying autumn foliage of which he made decorative cases, mounting the plants on black velvet. Some little account of our experience may be useful to future workers. We found that a gentle heat in drying was an advantage, as if dried fairly quickly the plants kept their colour better, and to take away the brittleness the drying boxes were put into a cellar for an hour before emptying the sand, which was done by withdrawing a cork at the bottom of the box; the sand ran out gradually. Our chief difficulty was, however, that after drying the plants were affected by moisture, and would flag and droop by their own weight. We got over this by giving them a thin coating of shellac which prevented the moisture acting on them. The lac used for this purpose should be white dissolved in wood naphtha, and just sufficiently strong to leave no perceptible gloss more than would be seen on a plant when moist. Finely ground colouring matter may be added to this solution to heighten the colours. Permanent colours should be used.

I have not much hope that this process will soon become general. It involves a good deal of time, and the prepared specimens take up a great deal of room, but for certain purposes, as for drying bunches of fruits of ash, elm, sycamore, &c., to include in an exhibit of timber trees, it is very useful, and the box saw-dust is an improvement on the sand.

Books.

EGYPTIAN ANTIQUITIES ; SCARABS ; an Introduction to the Study of Egyptian Seals and Signet Rings by Percy E. Newberry (University of Liverpool Institute of Archaeology). London : Constable and Co., Ltd. 18s. net.

Mr. Newberry says "there are few small objects of antiquity which present themselves so often to the traveler's notice in Egypt, as the little seals of stone, pottery, and other material, carved in various forms and engraved on their base." We may add to this the obvious fact that few museums are without a considerable number of these puzzling and intensely interesting objects in their collection. With the aid of this book, these can now be readily understood, and their meaning made plain to the ordinary museum visitor. The origin of the seal, its use and history, are treated with clear commendable brevity, from a wide range of study through a long residence, extending over several years, at Thebes. About one thousand three hundred specimens of Egyptian Seals and Signet Rings are figured, selected from drawings of some seven thousand, made after an examination of over thirty thousand. That statement will indicate the comprehensive nature of the author's book. Although the commonest form of the Egyptian seal was that cut in the shape of a scarabæus beetle, there were several other forms, such as the button seal, cylinder, etc., and almost equally important are the " sealings " which received the impressions. For the seals were not used in the restricted sense of stamping documents, but served to fasten up jars, locks, and even doors. On reading the book we have been much impressed by Mr. Newberry's succinct, yet very definite method of imparting knowledge, and his book will be of great help in all museums that can boast a collection of Egyptian Antiquities.

A BOOK OF BIRDS, by W. P. Pycraft, London : Sidney Appleton. 1908. 6s. net.

Glancing through the pictures in this attractive book, we are very much struck by the excellent coloration and

life-like appearance of the figures. A large number of birds are figured on each plate, of which there are 30 in the book, and though it is obviously impossible to give in that limited space anything approaching complete representations of the 14,000 species of birds, yet the examples have been selected with such judgement, in strict regard to natural relationships, that the entire avian realm can readily be comprehended. If any one could be placed in that happy state of freedom in a well planned building, void of specimens, to select at his own sweet will the most suitable contents for a museum, so far as birds are concerned, he could scarcely do better than secure specimens of all the birds shown in this book, and have them mounted in the attitudes they are here given. Such a collection would be not only fully instructive, but would allure anyone with a single spark of love for nature's feathered family, by its beauty and naturalness.

To describe these birds within the space of 150 pages, is a task that required powers of condensation, literary expression, and depth of knowledge that are not always combined in one individual, and any disposition to criticise the work should be chastened by a recognition of its difficulty. Mr. Pycraft has carried it out with a commendable amount of success. Perhaps the least satisfactory part of the work is the essential introduction, giving an account of the bird generally, the purport of such an introduction being clearly comprehended by the author, though it is not accomplished with readily enlightening lucidity, while some of the drawings show such crudeness of draughtmanship, that has the only merit of being rare in these days of general art training and facile processes. Following the introduction is a systematic summary of the orders of the avian class, with the salient features of the different groups briefly given. The book shows the latest example of colour printing in a way that cannot be too highly praised, and gives bird life with such vraisemblance as to be a marvel at the price. Nothing could really be better, and it ought to be on the shelves of every serious ornithologist, as well as in the hands of all lovers of birds.

DIE RÖMERSTADT AGUNT. A. B. Meyer and A. Unterforcher.
Berlin: Friedlander & Sohn, 1908.

The authors are to be congratulated on the production of a book which embodies a large amount of research and an extraordinary breadth of reading, and which is interesting and pleasant to read. Their task is to fix the position of the lost Roman city of Aguntum or Aguontum, whose site it is hoped shortly to excavate. For this purpose they have collected a large amount of useful evidence, and have utilized it with convincing skill. The matter has been complicated by a certain amount of confusion and inaccurate statement—and even deliberate fraud—which had to be cleared away at the outset. One fruitful source of error has been the identification of the Roman *Loncium* (given in the Antonine Itinerary as 18 M.P. from Aguntum), with *Lienz*. This mistake derived no small support from one of the literary frauds of Wolfgang Lazius—a man to whose extraordinary talent, and no less amazing mendacity, the authors devote an interesting appendix. One of the consequences of this confusion was that for some time Aguntum was identified with *Innichen*. The discovery of a Roman milestone at *Sonnenburg*, bearing the inscription *AB AG MPLVI* (—ab Agunto milia passuum 56), made it clear that the site of Aguntum would have to be placed in the neighbourhood of *Lienz*. Other evidence pointing in the same direction, was soon forthcoming. This would bring the site of *Loncium* a little to the east of *Mauthern* or *Kotschach*; a position quite in accord with the distance (22 M.P.) given by the *Ant. Itin.* as that between *Loncium* and *Julium Carnicum* (*Zuglio*). The authors have an interesting discussion on the name *Laiancum* (found on an inscription), which they incline to identify with *Loncium*. They give no derivation for the name *Lienz*. We might suggest—pointing out that the older form of the name is *Luenz*—that it may be a corruption of *Confluentia*. Its position at the junction of the *Drave* and the *Isel* makes this name at least appropriate. The reasons given by the authors for fixing the site of the city

between the villages of Nussdorf and Stribach seem conclusive, and it is to be hoped that this piece will be carefully investigated. The description of the antiquities already discovered by chance in this plot and its neighbourhood, is fascinating. Especially interesting are the remains of an early (probably 3rd or 4th century) Christian Church. One curious difficulty is pointed out. A young Tyrolese poet, describing his journey through this district, somewhere between 1530 and 1540, speaks of the remains of a stately Roman city, as among the sights that he passed. Either he was pushing poetic license beyond all reasonable bounds, or else a Roman city (probably Aguntum) was a conspicuous object in this neighbourhood, within modern times. It has completely vanished, and no record has been preserved of its destruction. We can only suppose that it afforded a convenient source of building material to the surrounding inhabitants, and the number of foreign and inscribed stones found by the authors and others, in houses around, bears out this supposition. The book is illustrated by a map, two portraits, three plates, and six cuts, and has a useful bibliography, and an excellent index. Several useful appendixes are added, treating fully of subjects referred to in the text. Not the least interesting of them is a discussion of the section of the Aquileia—Veldidena road of the Ant. Itin, as far as Vipitenum (Sterzing). The authors shew a distrust of the Itinerary for which we fail to see sufficient reason. Their objection to the distance given between Aguntum and Littamum (Innichen) 23 M.P. 34 km, is scarcely well founded. It is true that the distance along the railway is, as they state, over 42 km., but why have they taken it along the railway? The line runs N.W. to reach Lienz, and after leaving that town turns sharply S.W. We may feel sure that the Roman road did not do so. It most probably skirted the south side of the broad strath in which Lienz stands, and then followed the narrow Pusterthal. If so, the distance, as measured on Ravenstein's map of East Tyrol, would be 35-36 km., a distance which accords fairly well with the 23 M.P. (34 km.) of the Itinerary. In

conclusion, we earnestly hope that the newly formed museum at Lienz, in which Dr. Meyer has taken such active interest, will shortly house such a collection of antiquities as shall make Roman Noricum a living reality to the visitor.

EVOLUTION OF MAMMALIAN MOLAR TEETH TO AND FROM THE TRIANGULAR TYPE, by Henry Fairfield Osborn, Sc.D., LL.D. New York: The Macmillan Company. London: Macmillan and Co., Limited. 1907. 8/6 net.

This is volume one of Biological Studies and Addresses, a series of works which is to deal with some of the more recondite and specialized aspects of evolution. Dr. Osborn has started the series with a profound minuteness of research which augurs well for the elucidation of some of the obscure problems that lay at the foundation of biological science. From the complex crowns of the molar teeth of mammals, studied through all the geological periods in which they occur, he traces the origin of the main type of dentition, which he finds to have been a tritubercular form. This he illustrates through its various stages and changes, and draws important conclusions on the general principles of evolution from this field of study. It is a masterly example of close reasoning and careful investigation, made clear by the numerous well selected and admirably reproduced illustrations.

Museum Publications.

British Museum.

A GUIDE TO THE ELEPHANTS (Recent and Fossil) exhibited in the Department of Geology and Palæontology in the British Museum (Natural History), London. 8vo. 46 pp. Price 6d.

The British Museum contains a fine series of fossil elephants, including the collections made by Falconer and Cautley in the Pliocene rocks of the Siwalik Hills in India, those of Leith Adams and of Miss D. M. A. Bates from the

Pleistocene of Malta and Cyprus respectively, the Savin collection from the Forest Bed of Norfolk, with many other specimens of great interest. The scientific value of the collection has, however, of late been enormously increased by the remarkable specimens obtained by Dr. C. W. Andrews in the Eocene deposits of the Fayum, specimens which have thrown great light on the early evolution of the Proboscidea. While many of the originals described by Dr. Andrews are in the Geological Museum at Cairo, still a large number is preserved in the British Museum, and the series is supplemented by plaster casts. An account of the collections has therefore enabled Dr. Andrews, who is the author of this Guide, to draw up a complete and remarkably interesting history of the group of elephant-like animals beginning with *Moeritherium* and ending with the modern races of the Indian and African elephant. In order that the general public may understand the more specialised accounts, the Guide opens with a very lucid introduction explaining the position of elephants in the zoological system and their relation to allied animals, especially as regards the teeth. References to the show-cases in which the various specimens are exhibited are given in the margin, and occasional allusion to particular specimens is made in the text.

While we have nothing but praise for this book as an essay on the subject, combining scientific interest with lucidity of statement, we venture to think that, in view of its special nature, it would have been more valuable as a guide to the treasures of the museum had it contained a precise list of the various collections, to a few of which we have referred above, and had it been provided with either a systematic list or an alphabetical index, which might have referred not merely to the page of the Guide, but also to the positions of the various specimens on exhibition, and more particularly to the type-specimens. This information might have been given very briefly and need in no way have infringed on the functions of the well-known British Museum catalogues.

Chicago.

FIELD COLUMBIAN MUSEUM PUBLICATION 122. Meteorite Studies II., by Oliver Cummings Farrington, Curator, Department of Geology.

Perusal of this paper shows that the author has made a careful study of nine meteorites, whose arrival at the earth's surface occurred at different times during the past thirty years, except in one case reaching back as far as 1807. Of course, descriptions of the phenomena attending their fall have been recorded in various journals and newspapers; but the scientific manner in which they are discussed in this museum publication, fully justifies its appearance. Perhaps the most complete account is that of the Modoc meteorite, with the finding of a part of which, the author himself was concerned. This meteorite fell as recently as September, 2nd, 1905, and as a result of its disruption in the air, fifteen stones, weighing from 6oz. to 10 $\frac{1}{2}$ lbs., and in the aggregate totalling 35 lbs., were picked up by no less than 9 observers, while the area over which the shower—for such it seemed to be—was dispersed, extended some seven miles. Interesting details of the size, shape, structure, and composition of this and other meteorites are given, together with additional information as to the exact localities of fall. This last has led to several of them receiving more geographically-correct names. Twelve illustrations and three diagrams are of great service in helping the reader to master the technical descriptions.

U.S.A. National Museum.

CONTRIBUTIONS FROM THE UNITED STATES NATIONAL HERBARIUM.
Vol. X. Part 7. Studies of tropical American ferns, No. 1.
By William R. Maxon. Washington, 1908. Crown 8vo,
pp. 473-503, viii, pls. lv., lvi.

This deals especially with ferns from the West Indies, Mexico, and Central America, and includes notes on some of the earlier species, corrections in nomenclature, descriptions of new species, and revisions of certain genera and smaller groups of species. The specimens referred to come from

the Eaton herbarium at Yale University, the Gray herbarium, the herbarium of the Missouri Botanical Garden, that of the U.S. National Museum, that of Captain John Donnell Smith, and the combined herbaria at the New York Botanical Garden.

Although the intrinsic interest of the paper is considerable, what has chiefly led us to refer to it is the fact that, though only just 30 pages long, it is accompanied by an excellent index to the genera and species mentioned in it. Too many writers of even large and elaborate monographs still think that they can escape the duty of supplying an index and yet suffer no blame.

Museumskunde.

In an inaugural address at the opening of the Jena Museum of Archæology, DR. GRAF discussed the question of the exhibition of sculpture with special reference to collections of casts from the antique. He points out the advance made from earlier days, when antique sculptures were made part of the decoration of stately halls. The modern curator aims at exhibiting sculpture for its own sake, and for its use in art-teaching, and not as subsidiary ornament. In such a scheme, a mere fragment possessing no decorative value, might have great artistic value.

DR. F. A. BATHER contributes an article on the Northern Museum, Stockholm, his object being "not to describe the contents of the museum, or to serve as a guide to their arrangement, but to indicate such features as may be of service to other curators." To this object he has kept faithfully. The article begins with a short description of the grand building which, fine as it is, has fallen short of Arthur Hazelius' magnificent scheme. Questions of lighting, case construction and background, are then dealt with. Dr. Bather's terse descriptions do not admit of condensation, and quotation would be useless without reference to the diagrams illustrating the article. We confidently advise our readers to refer to the original article which is full of useful matter. The description of the cases is specially interesting,

for these cases are not only light in build and ingenious in structure, but are also dust-proof. Cheap and simple materials are used for the covering of walls and shelves, so that even if change is desired, it can be obtained without great expense. Dust is removed from exposed objects by vacuum cleaners ; a small one worked by hand and a large one driven by electricity. An insect-killing apparatus is used which is on the same principle as that used by Dr. Meyer, at Dresden, but is larger and has some improvements. Dr. Bather suggests that co-operation between museums might well be employed in the case of apparatus, such as this, which is costly and is only in occasional use. DR. SCHUTZE writes on the geological and palæontological collection, bequeathed to the town of Biberach, by the Rev. D. J. Probst. Before dealing with the collection, the writer gives a sketch of the life and work of Probst, whose fame as a geologist was wide spread. Dr. Schutze in arranging the specimens, had to convert the collection of a savant into a town museum, and he accordingly filled in all gaps as far as possible, and exhibited a complete series of rocks and important fossils in chronological order.

DR. GOTTSCHIEWSKI, commenting on the loss to Germany of the Hainau and Kann collections, points out the necessity for national co-operation in the purchase of works of art, especially in view of the great and growing demand for such works in North America. Competition between German cities must be avoided ; it must be recognised that provided the masterpiece is secured for Germany, it is a matter of secondary import whether it goes to Berlin or Munich or Frankfort. Another good result that could be secured by the scheme he advocates, is the formation and circulation of travelling collections over the Empire. DR. RATHGEN writes on the treatment of dull and cracked glazes (e.g. in Oriental pottery, Fayence, &c.), and on the use of Carbon Tetrachloride in the restoration of specimens. In the former case, after several experiments had been tried with unsatisfactory results, the actual rubbing down with extremely fine pumice powder was resorted to with

success. This treatment brought out clearly patterns that had been completely obscured by cracks and other imperfections in the glaze. At the same time, the glaze was so little injured, that iridescent colours on the surface were not wholly removed by the process. With regard to the use of Carbon Tetrachloride, Dr. Rathgen advises its employment as a solvent for resins in place of Benzine. It will dissolve gum-dammar at the ordinary temperature, and it also possesses the great advantage of being incombustible, of not giving off an inflammable vapour. This in his opinion, more than compensates for the disadvantage of being 50 per cent. dearer than benzine. He also points out that metal objects may be coated by solutions of resin in Carbon Tetrachloride without any fear of the metal's being attacked. The article by the late DR. OSWALD RICHTER is prefaced with a note by O. Nuoffer on the work and character of the author, who—after an immense amount of work achieved in spite of a deadly disease—died in harness at the early age of thirty-four. This article is the continuation of a series that has appeared in previous numbers of "Museumskunde" (Vol. II., 4; III., 1 and 2), and deals with one aspect of the practical part of the subject. The writer divides the practical part into three heads—in relation to (i) the specimens, (ii.) the public, (iii.) the science. The first of these heads—the curator's duty in reference to specimens—is here considered. The collection of specimens their conservation and display, their grouping and localization are treated. Expeditions, either by professional travellers or museum officials, are warmly advocated. A due regard to quality as well as quantity is to be observed. Brinckmann's formula of "a few, and those of the best" is commended. The use of casts and photographs to supplement specimens is advised. The writer suggests the compilation and use of illustrated catalogues, and mentions with special commendation those of W. D. Webster. Specialization, on lines arranged between museum curators and a free hand in the interchange of specimens are points strongly insisted on. Above all, collect while the chance

still remains. On this point, his teaching is summed up in a quotation which will have a pathetic significance for the reader—"Es gilt zu werken so lange es Tag ist ; denn es komm die Nacht, da Niemand wirken kann."

General Notes.

AT HOME.

APPOINTMENTS.—The keepership of the department of Oriental printed books and manuscripts in the British Museum, which was recently vacated by Sir R. Douglas on his retirement under the age-limit rule, has been filled, by the appointment of Mr. L. D. Barnett. He has been about ten years in the department as assistant librarian, and has devoted his researches chiefly to Sanskrit works.

Mr. Alfred Appleby Longden who has just been appointed curator of the Aberdeen Art Gallery, has had an interesting career. He was educated at Durham school and studied art in Durham Sunderland, and South Kensington. He was secretary of the Arts and Crafts Exhibition Society ; British representative of applied art at the St. Louis Exhibition, in that capacity spending about a year in the American city ; he also represented Great Britain in the fine art section at the International exhibition in New Zealand ; and was lecturer on art at South Kensington, so that he goes to Aberdeen with plenty of experience.

MUSEUM CONFERENCE AT PRESTON.—This Conference, the sixth of a series that has been held in Lancashire and Cheshire within the last five years, met on April 11th, at the Harris Free Library and Museum, Preston, on the invitation of the Preston free library committee, who extended the usual hospitality to the visitors. The meeting was attended by representatives of the museums of Manchester, Liverpool, Bolton, Warrington, Keighley, Stockport, Oldham, Rochdale, Blackburn, Bury, and Hull, and by a number of other persons interested in the organisation and management of museums. The afternoon was devoted to the inspection of the collections in the Harris Institute, erected for the purpose of a museum, art gallery, and library, at the cost of the Harris trustees. Alderman Hamilton, chairman of the Preston free library and museum's committee, occupied

the chair at the after meeting. From the Warrington Museum, were shewn specimens mounted in glass boxes on glazed wooden blocks for the purpose of being lent to schools, and Mr. Midgley (Bolton Museum), exhibited a simple method of framing diagrams. Dr. W. E. Hoyle then read a paper describing children's museums recently visited by him in the United States, which we hope to publish in the *Journal* later. Mr. W. B. Barton, Preston Museum, submitted the paper published in the *Journal* this month on the equipment of an art gallery and museum. In the discussion which followed, and in which many of those present took part, great admiration was expressed for the manner in which the principles laid down in Mr. Barton's paper were being carried out in the development of what is primarily and essentially an art museum in the building in which they met, and it was held to be a great advantage to have the theory of the institution so ably expounded. The main lines were approved, such criticism as was offered being directed against the method in the natural history department, or the absence of local antiquities.

PRESERVATION OF GRAMOPHONE RECORDS.—With reference to the paragraph entitled "Museum of Voices," on page 336 of our March number, we are informed by a correspondent that two years ago the trustees of the British Museum decided to preserve gramophone records of celebrities, including great singers, and that in consequence of their decision, there already is an important collection of such records in the British Museum, to which additions are made from time to time. Consequently, although the Paris Opera Gramophone Museum may be the first museum of the kind in Paris, the British Museum seems in its quiet manner to have led the way in this as in many other reforms.

COUNCIL AID TO THE WHITECHAPEL ART GALLERY, LONDON.—The education committee of the London county council has received a report from the general purposes sub-committee that their attention had been called to a memorandum from the Local Government committee, forwarding a letter from the trustees of the Whitechapel Art Gallery, with reference to an offer to transfer the gallery to the council, and asking the education committee what use they could make of the gallery (i.) if the council decided to make a grant to the trustees, and (ii.) if the gallery were transferred to the council. The sub-committee considered that the building would be suitable for the purpose of ex-

aminations, which now had to be conducted at the Northampton Institute, at the Medical Examination Hall, or elsewhere, at considerable expense to the council for hire. The building could also be used for such purposes as local exhibitions of school children's work and for meetings of conference requiring more accommodation than the halls of the council's schools can supply. The sub-committee further considered that the gallery had rendered valuable service in the education of the children in the district. Lectures were given there, and parties of pupils were taken over the various exhibitions in the mornings before they were opened to the general public. In one year 4,350 children visited the art gallery, and thirty-five lectures were given to them. The sub-committee thought that the value of the gallery to the council for the purposes of examination, &c., might be reasonably assessed at £350 a year, and the educational services rendered by it at £150 a year, making a total of £500 a year. In regard to the educational use to which the building could be put, the sub-committee pointed out that it not only offered educational facilities to the schools in its immediate neighbourhood, but that it was not difficult of access from most parts of the county. Having regard to the educational facilities which the gallery afforded, and to the materially increased facilities which would be afforded if the gallery were handed over to the council for a period of three months in the year, the sub-committee suggested that a grant of £500 a year should be made towards its maintenance, and they recommended accordingly. This was agreed to without discussion.

SUNDERLAND MUSEUM AND ART GALLERY.—An important addition has recently been made to this museum in the form of a series of specimens of fishes, models, and diagrams illustrating natural history, which have been purchased with the aid of a grant from the Board of Education. These include a model of a great auk's egg, also a cast of the oldest known fossil bird, the *Archæopteryx*, which possessed features linking birds to reptiles. The most important models, however, are those which illustrate the early life of the human embryo, in the successive stages resembling the lower animals, the fish, and the chick. The special interest of these models lies in the comparison with those of the dog, lancelet, and starfish, in the same series. The fish and amphibian specimens are eight in number, and include the climbing perch, as well as the bony pike, and Mexican axolotl. The diagrams are attempts to

represent the appearance of the landscape of our country in past geological ages, when large areas of what is now dry land were submerged under the sea, or were covered by inland lakes. There are two views showing the lagoons and swamps in which the plants which form our coal-seams were laid down, and other plates representing the Chalk age, and the Ice age. The series of diagrams also includes four plates illustrating the following types of races of mankind:—Negro, Chinese, Eskimo, and Australian. A new and revised edition of the catalogue of the permanent collection of pictures has been prepared, and is now on sale in the art gallery. It contains twelve illustrations including the following additional ones: "Weeds by the River," by Clayton Adams; "Duty Paid," by Ralph Hedley; and the statue, "Athlete and Python," by Lord Leighton.

MAIDSTONE MUSEUM.—We have received a series of views of Chillington Manor House, now the Corporation Museum, showing the exterior views of this 16th century example of domestic architecture, and the interior of the rooms with their present contents, forming an appropriate and attractive museum.

ACQUISITIONS BY THE BRITISH MUSEUM.—There have just been added to the coins and medals department of the British Museum the beautiful silver medal known as the "Trinity Medal" made in 1544 by Hans Reinhardt, of Leipzig—presented by the committee of the National Art-Collections Fund—and the collection of ancient coins of Judaea and neighbouring districts formed by the late Leopold Hamburger, of Frankfort-am-Main. This collection was purchased by the trustees of the museum.

BRISTOL ART GALLERY.—In arranging the seventh loan exhibition at the art gallery, the committee of the corporation responsible for its management, made a new departure. Instead of selecting works to illustrate a particular period or school, they undertook the far more difficult task of collecting pictures to indicate the position taken by animals in art. The success which has attended the venture is so pronounced that it is sure to be repeated in other forms upon future occasions. It is interesting to note that at the present time, the galleries are filled with 422 pictures. Of these, 130 form the permanent collection, while the balance of 292—made up of 188 oil paintings, 45 water colours, and 59 engravings—constitute the loan exhibition, which includes works by 127 artists.

ROYAL GIFT.—Queen Alexandra has presented to the museum of the Royal United Service Institution in Whitehall a handsome silver bowl, which was formerly the property of Lord Nelson, and which for some time has been preserved at Buckingham Palace.

Mr. W. W. Astor has given to this museum the field trumpet used at Balaclava by Trumpet-Major Henry Joy, 17th Lancers, to sound the order for the charge of the Light Brigade on October 25th, 1854. He has also presented the medals of Trumpet-Major Joy, consisting of the Crimean medal with four clasps, the medal for distinguished conduct in the field, the medal for long service and good conduct, and the Turkish military medal; and the flag of the U.S. frigate Chesapeake, taken by H.M.S. Shannon at the memorable fight on the 1st June, 1813.

A JAPANESE EXHIBITION AT MANCHESTER.—The art gallery committee have accepted an offer by Mr. Walter Behrens, of the firm of Messrs. S. L. Behrens and Co., to lend a choice collection of Japanese works of art for exhibition. Mr. Behrens has written an introduction to the collection, and the committee decided to have it printed. The committee hope to have the collection ready for exhibition about the middle of May.

ART GALLERY FOR BLACKPOOL.—A short time ago an anonymous offer of £2,000 was made to the libraries committee of the Blackpool corporation for the purpose of a new central art gallery, the conditions being that the gallery be erected adjoining the new Carnegie library in Queen street. The offer was at once accepted. The donors of the art gallery now prove to be Messrs. J. R. G. and C. C. Grundy, the former the president of the Blackpool Sketching Club, and the latter (who is one of the borough magistrates) the vice-president of the Royal Cambrian Academy of Art.

AFTER-DINNER ART.—“Half-hour talks on art” have been given in the Manchester art gallery. The talks were started last year at the instigation of the Manchester Royal Institution, a body having for its aim the furtherance of art in Manchester. The council of this body felt, and this year the art gallery committee were with them, that the city's pictures should fulfil a greater function than being objects of pleasure only, and that their educative value should be turned to account. With this object the dinner-hour talks were begun, and they had been a pronounced success judging from the number of people who last year attended them.

BRITISH ASSOCIATION.—The annual meeting will be held this year in Dublin from 2nd to the 9th of September, under the presidency of Dr. Francis Darwin M.A., F.R.S. In the two previous years the meetings were held in the August bank-holiday week, but this contempt for a national custom did not meet with any marked approval for the attendance was comparatively small. The resumption this year of a more convenient date for the meeting, will no doubt result in a much more representative gathering.

LEIGHTON HOUSE AND CROSBY HALL, LONDON.—The Leighton House committee desire to make it clear that there are two schemes for the re-erection of Crosby Hall under consideration. One scheme is that this old 15th century building should find a place on the green lawn of the late Lord Leighton's house in Kensington (which has been open to the public for the last 11 years), and should be used as a free art library, as well as for lectures and concerts; the other that it should be incorporated into a building which has yet to be erected for students in Chelsea.

ART GALLERY FOR REVENUE.—A strong protest has been made by some of the citizens against the recent action of the committee of the Walker Art Gallery, Liverpool, for letting part of it to a private French firm for the display and sale of certain kinds of prints. It is satisfactory to find that this commercial spirit does not pervade the whole of the committee and it is to be hoped that the loftier appreciation of the purposes of a civic art gallery which seems to be slowly permeating those in charge of it will have the effect of purging this great institution of those baser mercenary impulses that have already done so much to lower its influence. In a letter to a local journal, the chairman of the committee says "The committee pay rates upon their building, and consider it is their duty to make use of their rooms for the purpose of obtaining revenue to recoup the ratepayers for this and other expenses they are put to in maintaining the galleries, provided always that any exhibition accommodated is of sufficient artistic importance," while in another place he is reported to have said: "The desire of the arts sub-committee was to utilise the gallery with a view of making revenue for the ratepayers, and contribute to the art education of the citizens." Happily those sordid views of the purposes of an art gallery of a wealthy municipality are not shared by other cities, and are utterly unworthy of the greatest seaport of the world.

WARRINGTON MUSEUM.—A special exhibition of the works of George Sheffield, landscape painter, who, born at Wigton, Cumberland, in 1839, came to Warrington, where he practised his art. About 170 of his pictures are on view.

ABROAD.

STATE UNIVERSITY OF IOWA.—The extensive botanical collection of the late Professor A. P. Morgan, representing the rich mycologic flora of the lower Ohio valley, has been presented to this university by his widow, together with accompanying books and pamphlets.

UNITED STATES NATIONAL MUSEUM, WASHINGTON.—This museum has bought the collection of blastoids formed by Dr. G. Hambach of St. Louis, Mo. This is probably one of the best collections of blastoids in the United States, and, since Dr. Hambach is a ready describer of new genera and species, the collection contains many type-specimens. It does not, however, comprise many representatives of fossil blastoids from other than American localities.

A SCHOOL FOR CURATORS.—The Pennsylvanian Museum and School of Industrial Art in Philadelphia, has established, under the supervision of Mrs. Cornelius Stevenson, Sc. D., formerly of the Free Museum of Science and Art of the University of Pennsylvania, in Philadelphia, a course for the training of curators for art, archæological and industrial museums, the ever increasing demand for competent museum directors, curators, and assistants only being met, as has been that for librarians, by educating students for the particular purpose, and a knowledge of "Museum Science" being essential to the high professional standing of a curator. We welcome this new start of the active Pennsylvanian Museum and felicitate it on its inception, hoping that such a model of a museum science school may be both fruitful in imitation and in practical results.

BROOKLYN, N.Y.—A new children's museum building is to be erected at a cost of 175,000 dollars, the present one with its small rooms having quite outgrown its requirements. The Brooklyn children's museum forms part of the Brooklyn Institute of Arts and Sciences, and is situated in a park. It was opened in the year 1899, in two small rooms. It embraces zoology, botany, United States history, mineralogy, geography, and art. The library with its 5,000 volumes has

sometimes as many as 400 readers in one day. The museum was visited in the year 1906, by nearly 100,000 visitors, comprising 125 schools, the lectures attracting an attendance of over 17,000. "It would seem from the statistics," says the able curator of this museum, Miss Anna Billings Jallup, B. Sc., in a paper in "the Popular Science Monthly," for April, "that a Children's Museum if not a life necessity, is indeed an unquestioned blessing to a great city like our own, whose population is boxed in apartments or brown stone blocks of such vast extent, as to place the country beyond the experience of many children. The advantage of a cheerful, sunny, attractive museum, rich in natural objects, artistically displayed, where children are sure to find a sympathetic welcome, where they are safe and happily and profitably occupied, is scarcely appreciated until we pause to consider the influence for good or evil of habits acquired in leisure hours, and of the demoralising influence of crowded city streets and back alleys. This relates with equal force to London, Manchester, Liverpool, and other of our gloomy cities, and to the large continental ones.

DETROIT MUSEUM OF ART.—This museum has a ten-dollar subscription art picture fund so well supported that important additions are made to the permanent collection by this outside aid. In 1906, an example of American art by D. W. Tryon "Before Sunrise, June," was purchased, and in 1907, the museum secured the picture of "The Refectory of San Damiano, Asissi," by Julius Rolshoven, of Detroit.

METROPOLITAN MUSEUM OF ART, NEW YORK.—Among recent accessions to this museum, are fine Greek mirrors, the outside covers each decorated with a relief in the best type of ancient Greek art. These are figured and described in the *Bulletin* for April, which also contains particulars of a bronze bust of Pope Innocent X., attributed to Alexandro Algardi; a pair of painted and lacquered doors from the palace of Isphan; a Tabernacle of the Muranese School; and various ceramics among the latest accessions.

AMERICAN MUSEUM OF NATURAL HISTORY.—An interesting article on the Trachodon group with some excellent illustrations of these duck-billed dinosaurs appears in the American Museum Journal for April, and there is also a fine reproduction of the head of a large African elephant which has been mounted with striking natural success by Mr. Herbert Lang. When alive the elephant stood roft.

4in. high at the shoulders, and was 22ft. 8in. long. The tusks are 6ft. 4in. long and weigh 160 lbs. A novel exhibit recently placed in the museum is a globe 48in. in diameter which has been set so that it rotates on its axis by means of clock-work once in 24 hours. A search light that takes the place of the sun illuminates the globe and casts the shadow of an index upon it in such a way as to indicate the time of day. This is a demonstration of a principle that, comparatively simple, few people manage to grasp from text-books.

MUSEUM OF FINE ART, BOSTON.—The *Bulletin* of this museum for April, contains a well illustrated descriptive article on Chinese and Japanese mirrors.

PHYSICS IN MUSEUMS.—In the Museums News of the Brooklyn Institute, for April, Miss A. B. Gallup pleads for instruction in elementary physics as part of the work of a museum. She says: "Our children come to the museum to learn the uses of the root, stem, and leaves of the plant. We show them specimens, pictures of roots, and models of roots and leaves; but the principles which most satisfactorily answer the inquiries are best illustrated by experiments in osmosis and capillary attraction. The song of the birds, the pitch in the bull-frog's voice, and the music of the katydid are doubly attractive to the child who has some knowledge of resonance, or the conditions which produce changes of pitch. If we exhibit volcanic products, photographs of volcanoes in action, pictures of earthquakes and geysers, why should we not perform experiments illustrating the effect of heat on solids and the dynamic power of expanding gases? We hang in our geography room, charts showing the mirage and rainbow, knowing that no child can understand either phenomenon without some knowledge of the refraction and reflection of light rays. No subject lies so at the foundation of all Nature Study (we use the term in its broadest sense) as elementary physics, and in our experience no knowledge must be so frequently employed to answer intelligent questions called forth by our collections, and if our aim is to disseminate knowledge and to cultivate appreciation, how can we consistently dispense with so valuable and useful an aid as elementary physics, which plays such an important part in everyday experience, illuminates every phase of natural history, and affords such opportunities for individual experiment?"

MUSEUM THEFT.—A large lump of platinum weighing three-and-a-half kilogrammes, with an intrinsic value of

not less than £600, was stolen from the state mineralogical collection at Munich, on the morning of Sunday, 29th March. This collection is housed on the ground floor of the Alte Akademie, and the specimen was exhibited in a glazed table-case with a steep slope in front of a window. The thief attempted to open the case with a false key, which, however, broke in the lock. He was therefore obliged to open the lid of the adjoining compartment, whence he stretched his hand in and removed the platinum together with one or two intervening specimens of minor value. The loss was quickly discovered by the attendant, who at the same time noticed the disappearance of a visitor whom he had previously seen in the room. The description of the supposed thief is "a man 25 or 30 years old, about 5 ft. 5 in. high, thickset, fair-haired, full in the face, of healthy appearance, with fair close-cut moustache, stiff black felt hat, dark summer overcoat, and dark trousers." It is remarkable that this piece of platinum was stolen three years ago, but was recovered from a bank that had purchased it, and the thief, who was caught, received two and a half years' imprisonment.

NEUSS—(NEAR COLOGNE).—The widow of Dr. Clemens Sels, born Hoffstadt, has bequeathed to the city of Neuss, 250,000 Marks (about £12,500), for the erection of a museum.

BERLIN — ROYAL ETHNOGRAPHICAL MUSEUM (KGL. FÜR VOLKERKUNDE).—Dr Arthur Baessler, the well known scientific traveller and author of many important works on the ethnography of the South Sea, and South America, who died in the year 1906, has bequeathed to this museum 1,400,000 Marks (about £70,000), for the erection of a "Baessler Institute," for founding a library for ethnography and a periodical for the publication of the researches in the field of this science, as well as for sending out expeditions for ethnographical and ethnological purposes, and for acquisitions for the museum.

CANINE CUSTODIANS.—It is announced that M. Dujardin-Beaumetz, the under-secretary of fine arts, has given his final approval to a project which was suggested to him six months ago for the installation of watch dogs in the Louvre Art Gallery. The department of fine arts has for some time been examining the various qualities of different watch dogs. The numerous breeds presented were soon limited to the mastiff, or some such dog capable of meeting and defeating a man, and the fox terrier, which, with its

sharper wit and senses, would always be able to make the burglar or thief unmask himself. M. Dujardin-Beaumetz has decided to do without the mastiff, and will begin the realisation of his scheme by installing half a dozen fox terriers in different parts of the art gallery. In addition, M. Dujardin-Beaumetz has re-arranged the system of watch and guard of the art treasures contained in the famous old palace. The staff has been increased; the rules have been made more severe, and, in general, the watch kept is much more vigilant.

AUCKLAND MUSEUM, N. Z.—Certain carved Maori burial chests, recently discovered, have been placed in this museum. Most of them are carved into the rough resemblance of a human figure, and are probably about 200 years old.

THEATRICAL EXHIBITION IN PARIS.—An exhibition of the arts pertaining to the stage has been inaugurated at the Louvre in the Marsan wing, where M. Georges Berger, the Deputy for the Seine, and member of the Institute, presides over the Central Union of Decorative Arts. This Exposition Theatrale is to be open throughout the summer and well into the autumn. The catalogue, which contains more than a thousand entries, has itself the value of a bibliography. The six sections, in which the objects presented are grouped, bear the titles of Greek and Roman antiquities, old portraits and pictures, pastels, water-colours, gouaches, miniatures, and drawings, models of stage scenery, busts, statuettes and ceramics, marionettes, costumes, accessories and divers objects.

DISCOVERY OF A MAMMOTH.—The Academy of science, St. Petersburg, has despatched a well-equipped expedition to the valley of Santauriakh, in Northern Siberia, in order to excavate the remains of the mammoth which has been discovered 300 versts from the village of Kasachia. The cranium and part of the right foreleg were exposed through the action of water, and hair covered flesh was found adhering to the bones. The Arctic foxes had actually begun to eat it, and water has now been poured over the exposed remains so as to form a protective coating of ice. The scene of the discovery is so remote that the journey there will occupy the expedition two months. The remains will be transported by some fifty sleighs, drawn by reindeer, to the River Lena, and the final stage of the journey—from Irkutsk to St. Petersburg—will be completed by train. Great value is attached to the discovery, inasmuch as the

mammoth now exhibited in the Zoological Museum at St. Petersburg is known not to have reached full development. It is estimated to have attained only 25 years.

OBITUARY.—Geheimrath-Professor Julius Lessing, director of the Berlin Museum of Industrial Art, died in March, after having occupied his post for nearly 36 years. Dr. Lessing, who was born at Stettin in 1843, devoted himself at an early age to the study of archæology, and received an appointment at the Berlin Museum for Industrial Art upon its foundation in 1867. After his appointment to the post of director in 1872, the museum, which had been transferred to a new and larger building in 1881, rapidly grew both in extent and importance. Dr. Lessing was a well-known collector in his private as well as his public capacity, and enjoyed a wide reputation as professor at the Commercial College at Charlottenburg. Amongst his publications may be mentioned works on "Woodcarvers in the 15th and 16th Centuries," and on the history of various movements and developments in the textile industry both in Germany and in other countries.

Correspondence.

To the Editor of *The Museums Journal*

10.H, Queen Anne's Mansions, Westminster, S.W.
18th April, 1908.

I observe with much regret, the repetition in the March number, page 337, of the *Museums Journal* of an absurd and purely imaginary story, in regard to an "Historic Coin," which found its way into some Continental newspapers a few weeks ago. Not only has the French National Museum (whatever that may mean), not purchased such a coin for the ridiculous price of £6,000, but they would probably refuse to give a six thousandth part of that sum for a specimen; as the real value of the coins referred to is about 20 francs, and they are still to be found in circulation.

HORACE SANDERS, F.S.A.

MUSEUMS ASSOCIATION.

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The object of the Association is the promotion of better and more systematic working of Museums throughout the Kingdom. In order to promote a better knowledge of Museums, the Association meets in a different town each succeeding year.

Each Museum contributing not less than one guinea a year becomes a Member of the Association, and individuals are admitted as Associates on payment of 10s. 6d. annually.

Each Museum can be represented at the annual meetings by three delegates, each having one vote. Each Associate has one vote.

Each Museum belonging to the Association and each Associate receives one copy of the publications of the Association.

A General Meeting of the Association is held annually, for the transaction of business, the reading of papers, and the discussion of matters relating to Museums.

All communications relating to the Association should be addressed to the Assistant Secretary, and communications relating to the *Journal* should be sent to the Secretary, to whom subscriptions should be paid.

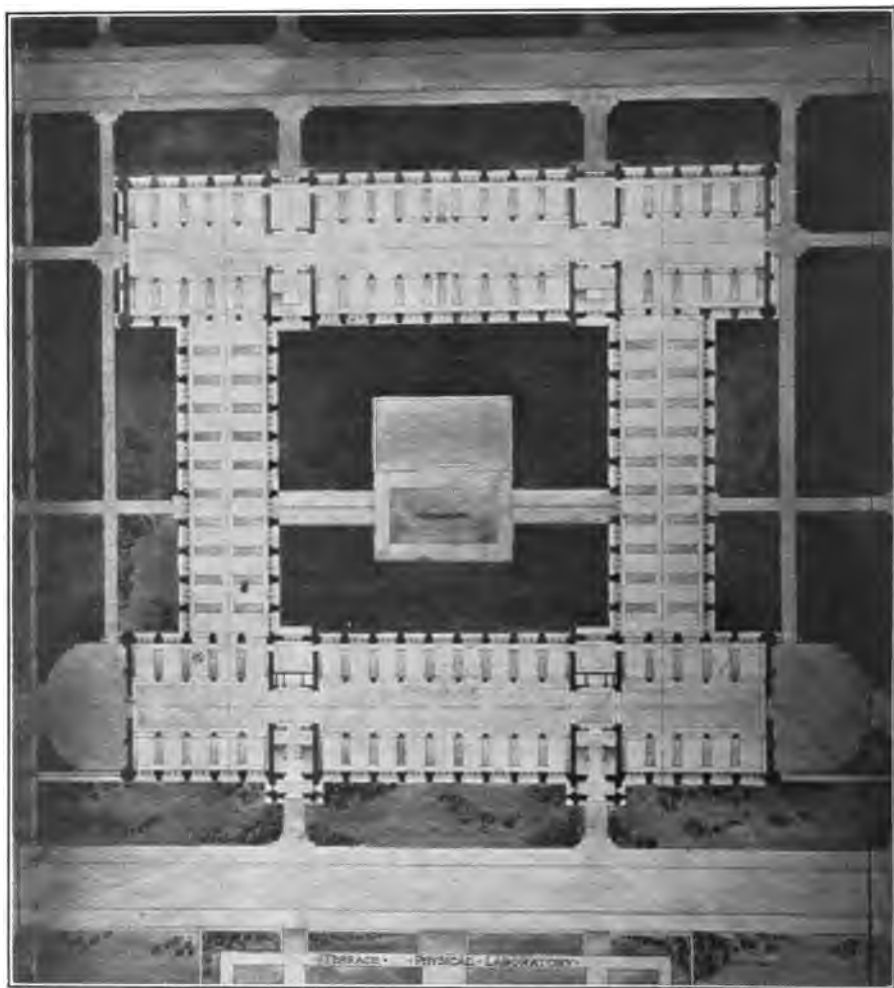


FIGURE 1.—PRELIMINARY PLAN OF THE MUSEUM FLOOR OF THE NEW NATURAL SCIENCE LABORATORY, SHOWING, IN ITS LOWER PORTION, THE MAIN BUILDING FACING NORTH, AND THE PROPOSED EXTENSIONS TOWARD THE SOUTH, WITH THE VIVARIUM IN THE CENTRE OF THE QUADRANGLE.

THE MUSEUMS JOURNAL.

Vol. 7.

June, 1908.

No. 12.

The New Natural Science Laboratory at Princeton University.

BY GILBERT VAN INGEN,

Assistant in Geology, and Curator of Invertebrate Palæontology.

THE plans for the Natural Science Laboratory, designed to accommodate the departments of biology and geology, have advanced so far towards completion that it is now possible to give an illustrated description of the building and of some of the larger details of its interior arrangements.

All the laboratories and collections of the various branches of the natural sciences now scattered over the campus—in Nassau Hall, the south stack of the library, '77 biological laboratory, school of science, and chemical laboratory—will be collected in this new building.

The architects of the building, Parish and Schroeder, of New York City, have embodied in these plans a series of recommendations made in the form of a report by a committee of three members of the faculty who, in company with Mr. Schroeder, visited and inspected many of the important laboratories and museums in the Eastern States.

The site chosen is on the west side of Washington Road just south of the infirmary, which offers ample space for enlargement of the building to meet the needs of future growth, and which possesses the additional advantage of having an environment that can be readily adapted for laying out the gardens and enclosures for a small zoological park needed by the departments of botany and zoology.

The complete scheme for the Natural Science Laboratories, as indicated in the plan of the museum floor shown

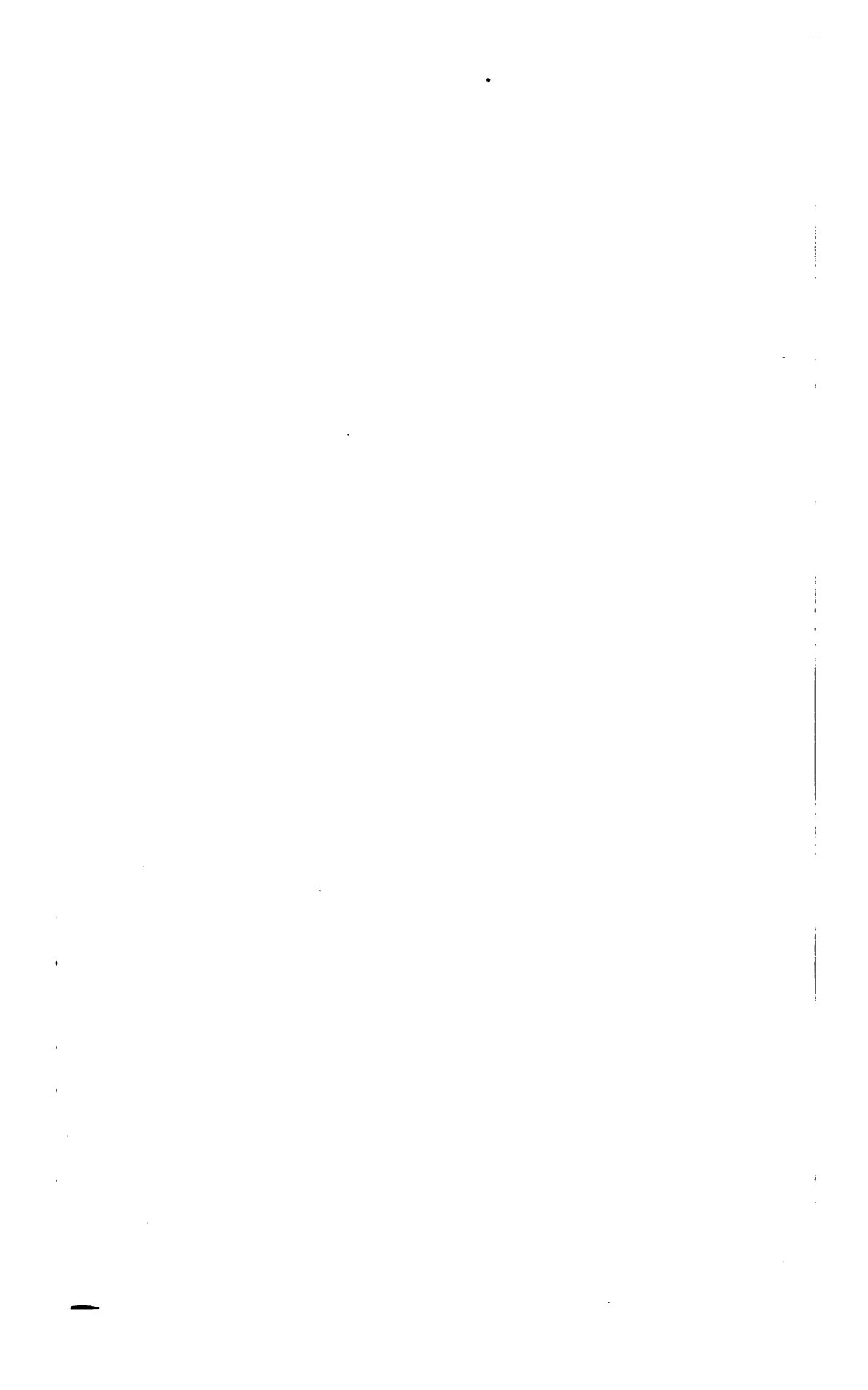
in Figure 1, contemplates the eventual erection of a building in the form of a quadrangle, 288 feet along its east-west axes, and 256 feet along its north-south axes, and enclosing an open court 152, by 146 feet in diameter. The north section of this quadrangle with the northerly half of the east section (forming the lower portion and left side of the plan figured) will be erected during the ensuing year with the funds provided, which amount to \$400,000. An additional sum of \$200,000 is assured for the maintenance of the building.

The perspective drawing, reproduced in Figure 2, shows the north view of the building presently to be erected, and herein referred to as the "Main Building," together with a glimpse of the southerly extension. This portrays a building 288 feet long by 60 feet in depth, in the Tudor style of architecture, in close agreement with the more recent structures on the campus, but with marked individuality of expression. It is massive, simple, elegant. Its northeast corner will be near the small brick building formerly used as a bacteriological laboratory, and its major axis will extend westwardly along the south side of the avenue to be built from Washington Road toward the great tower in the extension of the Patton Hall dormitory. It consists of a central section about 110 feet long and four stories and basement in height, two rectangular towers, each 22 feet in width, which will rise considerably above the roof, and of two end wings each about 64 feet in length and three stories high, with basements. The L-wing extending southward from the east end will be 65 feet long by 40 feet wide, and will be two stories high with cellar below. Its roof will be slightly above the level of the second floor of the main building.

The relationships between the east, west and south sections of the future extensions and the main building are shown in Figure 3, a cross-section along the north-south middle line of the quadrangle, in which all that portion to the right of the vivarium is future extension.



FIGURE 2.—PERSPECTIVE DRAWING OF THE NORTH FRONT OF THE MAIN BUILDING,
CONSTRUCTION OF WHICH WILL BE BEGUN IN THE SPRING.



The most prominent architectural features of the main building are the heavy towers, at the basis of which are the main entrances in porticos slightly advanced beyond the building line. These towers provide space for the staircases in their northerly portions, and for the elevator shafts and two small rooms in their southerly halves. The unit of construction throughout the building is that of a "bay" of $12\frac{1}{2}$ feet on the centers of the wall piers. The dimension of the wall piers, indicated by the buttresses on the exterior of the building, is $4\frac{1}{2}$ feet, while the width of the windows in general is 8 feet. This dimension promises to yield the most satisfactory results in the arrangement of cases in the museum on the ground floor and of tables in the laboratories of the upper stories.

The problem before the committee was the designing of a building to contain a museum, and the laboratories, lecture rooms, preparation rooms, etc., needed for the work of instruction and research in the natural sciences at a university located at no great distance from two cities which maintain large municipal museums. The fact that such museums are within easy reach of both students and instructors influenced the committee in deciding that the museum interest should be subordinated in a sense to the educational interest. Examination of Figures 2 and 3 will show that the museum occupies the ground floor of the building, and that the laboratories are on the floors above, and to some extent on the basement floor. The committee feels that in order to make the museum an active factor in scientific instruction it should be so placed as to be at all times easy of access by the student body, and that this object is best attained by making contact with the museum and its exhibits, in some degree at least, unavoidable by students passing to and from the laboratories on the floors above and below. The museum will accordingly occupy the entire ground floor of the main building and three-fifths of the L-wing. It will thus be most easy of access by students and visitors. The location of the laboratories on the floors

above will ensure their being quite free from interruptions by visitors.

The museum story, with a ceiling of 18 feet in height, will have its floor on the north side of the building at a level about 5 feet above grade, and it will be carried through the east and west sections of the extensions at the same level into the south section (see Fig. 3), where it will form the top story of the building and where it will be possible to give it a higher vaulted ceiling and to introduce galleries if necessary. The north-south section of figure 3 shows that the basement of the main building will be wholly above ground in the east and west sections and will form the second story in those portions of the extension that lie south of the vivarium line. Indeed the slope of the ground is such that a still lower story will be possible in these extensions, and further, a cellar under the south section only. The portions of these stories that lie wholly above ground will afford ample space for meeting any conceivable increase needed by the laboratories in the future.

The width of the east and west sections is only 36 feet inside, which is too narrow for a central corridor through these portions, and which will necessitate the adoption in these sections of an arrangement of laboratories on the entry system similar to that of McCosh Hall. An interesting corollary of this condition will be the unavoidable use of the museum floor as the only uninterrupted interior passageway between the main building and the laboratories in its southerly extensions.

The upper stories of the main building, occupied by the laboratories are traversed along their medium lines by corridors 6 feet in width, a dimension that affords ample passageway and at the same time precludes possible use of the corridors for lockers and storage. These corridors divide the upper stories into long rooms about 24 feet wide, which have been divided into smaller rooms by temporary partitions, according to the needs of the different departments.

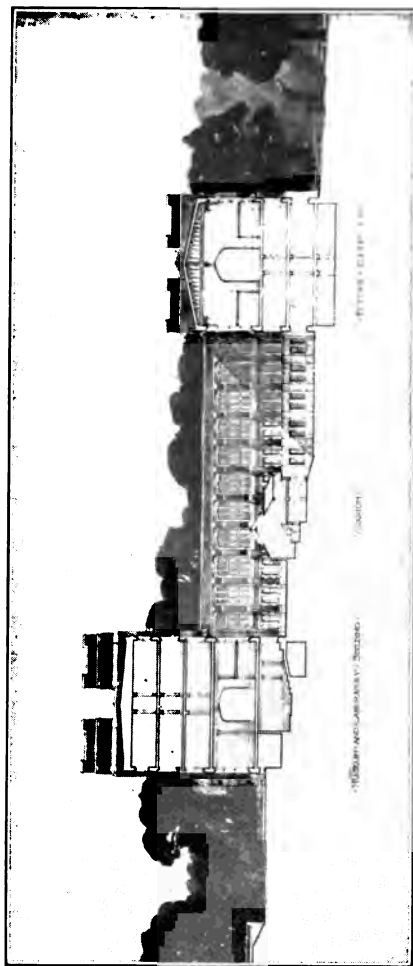


FIGURE 3.—SECTION ALONG A NORTH-SOUTH LINE THROUGH THE CENTRE OF THE QUADRANGLE
SHOWING THE ARRANGEMENT OF THE STOREYS IN THE MAIN BUILDING AND SOUTH
SECTION, THE WEST WALL OF THE EAST SECTION, AND THE POSITION
OF THE VIVARIUM.

The space in the main building has been apportioned in approximately equal shares between the two departments as at present organized. The department of biology will occupy the eastern half, including the L-wing, while the department of geology will occupy the western half, overlapping the central line on one of the floors to compensate the space in the L-wing of the biology end.

A single lecture room with 236 seats will be provided in the basement for use by the few large lecture courses in both departments. It is the intention of the instructors to adopt the lecture-laboratory method of instruction for small classes, delivering lectures and conducting practical work in the same room. To this end every general laboratory will be arranged and equipped so that it may be used as a lecture room, provided with projection lantern, screen, charts, etc., at short notice.

The plan has been to provide such a lecture-laboratory room for the instruction in each separate subject, so that mutual interference between the work in unrelated subjects (so discommoding at present) may be avoided in the future. Associated with each of these laboratories, usually next to it, is an office for the instructor in which he may meet students in preceptorial work apart from the laboratory work, and adjacent to the office is a private room where the instructor may carry on research work without interruption. Thirteen such lecture-laboratory rooms have been provided, six in the department of biology, and seven in the department of geology. In addition to the undergraduate laboratories, 15 rooms will be available for special graduate work, four of which are at least 25 by 24 feet in size. Other rooms have been provided for the preparation of specimens in the class work and for the prosecution of the curatorial work in connection with the museum.

The basement will contain the lecture room centrally located, the physiological and junior biology laboratories in the east wing, and the blowpipe analysis laboratory in the west wing. Rooms for ventilating apparatus, machine

shops, incinerator for burning refuse from the laboratories, seismograph, chemical stock, preparation, etc., will be located in the basement.

The first floor will be devoted to the museum, which will have a gallery along the south side of its central section. The exhibition space has not been apportioned. The end of the L-wing of this story, forming a room 36 by 25, will be temporarily occupied by the comparative anatomy laboratory.

The feature of most interest on the second floor will be the large central reading room with lateral stacks of sufficient size to accommodate the departmental libraries. A seminary room for each department, the laboratories of cytology, histology and embryology, graduate zoology, structural geology, petrology, mineralogy, and of physical geography will be located on this floor.

On the third floor will be the rooms for the stored biological collections, the botanical laboratories, and the palæontological laboratories, with rooms for the stored geological collections.

The upper story, which occupies the central section only, will contain a zoological laboratory, photographic rooms and large curatorial room of the biological department, and, in the west half, the graduate laboratories and the "Illustration Suite" of the geological department. The tower roofs will be utilized for a meteorological station, room for macerating skeletons, and platforms for weathering bones, rocks and fossils.

Excellent and abundant facilities will be provided for carrying on photographic work of all kinds; a room for ultra-violet work and projection, one exposure room and three dark rooms affording five compartments have been provided in the biological department, and in the department of geology will be a large exposure room with lantern slide, bromide enlargement, and microphotographic apparatus, besides the ordinary cameras; a printing room with large blue-print frame and other appliances, and a dark room with four compartments.

A few words as to the material and method of construction: The building is to be fire-proof throughout, of steel skeleton construction, with brick exterior and transverse walls. The exterior will probably be of overburnt brick with gray stone trimmings, similar in style to that of the physical laboratory and '79 Hall. The interior walls are to be finished in smooth plaster and tinted in warm light tones. The partition walls between rooms are to be fire-proof, but of such construction as to permit of their being easily removed when it may be desirable to enlarge a room. Encaustic tile of one inch diameter has been recommended for the floor of the museum and wood for the large lecture room. All other floors are to be of concrete with smooth cement finish, rounded up for 6" along the wall, and covered with linoleum where needed to reduce dust, noise, and chill.

Outlets for electric lights and gas are to be provided at every wall pier and pier equivalent throughout the laboratories and workrooms. Direct current for the several projection lanterns in the laboratories will be furnished by a motor-generator located in the basement. Two elevators, one in each tower, will be operated by electric power.

The ventilating apparatus has been reduced to a minimum because of its great initial cost and its heavy running expense. Forced draft will be furnished to the large lecture room and exhaust will be drawn from several rooms in which obnoxious odors may be generated. It is confidently believed that natural draft may be relied upon to maintain the majority of the rooms in a satisfactory state of aeration.

The vivarium, which forms so essential a factor in the activities of a progressive biological department, and the need for which at Princeton is very great, will include tanks for fresh and salt water, enclosures for live animals, and a small green house. It is hoped that it will be possible to build these structures on a comprehensive plan, and to locate them in the center of the terrace south of the main building, where they will remain until such time in the future when the completion of the quadrangle will involve their removal to a less circumscribed environment.

Princetonians should have a sense of gratification in having been able to secure that result so often desired by educational institutions and so rarely attained—A Natural Science Laboratory constructed in close conformity with the recommendations of the men who are to use it and embellished by an architect in sympathy with the aims of these men.

Children's Museums.*

BY W. E. HOYLE, M.A., D.Sc.

THE average museum, in one respect, resembles the average sermon, for it takes no account of the children who may be amongst those using or hearing it, and yet there is no section of the community more responsive to the kind of influence which a suitable museum may exert. I am not aware of any institution in this country which is definitely and distinctly a children's museum, and in saying this I do not forget the excellent work which has been done for school children by Miss Beatrice Vernon at the Ancoats Art Museum, Manchester, nor the similar services rendered by some other museum curators farther south.

Our American cousins, however, with the zeal for trying new ideas which characterises them, have made some efforts in this direction, and two of these are well worthy of serious study by museum officials. The first is the children's room at the Smithsonian Institution, Washington. The idea of installing this museum was due to Dr. S. P. Langley, the Secretary of the Smithsonian Institution, who wrote a letter in his official capacity to himself as a private individual appointing himself to organise and take charge of this room without salary.

The object he aimed at was to provide a small, cosy, pleasant room, cheerful and well lighted, fitted with cases

*Read at a Conference at the Harris Museum, Preston, April 11th, 1908.

not too high for the average child to see all their contents, which were to be stocked with a carefully selected series of specimens, each chosen with the view of giving the child pleasure; if the child received instruction also, well and good, but that was only a secondary consideration. In fulfilment of this scheme a sunny apartment was allotted, just opposite the main entrance on the ground floor; the ceiling is painted to represent the roof of a vine clad arbour, through the interstices of which the sky may be seen and gaudy birds look down upon what takes place below. The nature of the contents of the cases can, of course, only be generally summarised.

One contains for example curious birds. A great point is the illustration of extremes, the largest and smallest bird of prey, the largest and smallest eggs. "How creatures hide" is the title of a case with instances of mimicry. All specimens are labelled in plain English in large type; only one specimen has its Latin name and that is a tiny humming bird labelled "*Rhamphomicron microrhynchum*," a suggestion of what the reader has been spared by the omission of the others. Beautiful and fascinating is this little room; it stands there to do its own silent unobtrusive work. There is no curator in attendance to answer questions or give demonstrations, and this seems to be the one want in an otherwise well considered and well carried out scheme.

The Children's Museum, Brooklyn. Bedford Park, surrounding an old mansion, was purchased by the city for a public park. It was intended to pull down the house, but after some negotiations this was spared for its present purpose. It contains two storeys and has about a dozen rooms available for exhibition purposes. It was opened December 16th, 1899, and in twelve years the attendance exceeded 200,000. The staff consists of the curator, Miss A. B. Gallup; assistants, Miss Mary D. Lee, Dr. G. P. Engehardt; librarian, Miss M. S. Draper; an assistant librarian and a secretary. In 1904 it became a dependent branch of the Brooklyn

Institute of Arts and Sciences and then enlarged the scope of its operations to include not only natural history, but also history, geography, art, and to some extent industrial processes.

In working out the collections for the Children's museum the following aims have been kept in view :

- (1) To employ objects attractive and interesting to children, and at the same time helpful to teachers in every branch of natural study.
- (2) To secure an arrangement at once pleasing to the eye and expressive of a fundamental truth.
- (3) To avoid confusion from the use of too many specimens and the consequent crowding in cases.
- (4) To label with brief descriptions expressed in simple language, and printed in clear readable type.

To give a detailed account of the contents of the cases would be impracticable within reasonable space, and would serve no useful purpose ; each apartment has its special purpose, which is indicated by its name. For example, on the ground floor are the bird, botany, insect, mineral and zoological type rooms ; the first floor is devoted to mammals, shells, geography, history, and art. The shell collection sufficiently illustrates the method adopted in the case of other series. It has been specially designed (1) to attract the attention of children, (2) to reveal the beautiful colours and forms of shells, (3) to show the principal types of marine, fresh water and land shells, and (4) to point out some uses of shells.

The specimens have all been mounted on black felt, which throws up the colours vividly ; these have been arranged in a kind of scheme in the order of the spectrum ; there is a large dissectible model of a snail, a few spirit specimens showing different forms of shell-less mollusca, and an aquarium in which a few living species may be studied.

The keeping of living animals is an important branch of the museum work, and a source of endless interest to the young visitors. Up to the present time the following, amongst others, have been kept for a larger or shorter time, an owl, turtles, frogs, toads, lizards, bees, and caterpillars.

Among the specimens brought by juvenile visitors as gifts to the museum, are frequently examples of insects, which have suffered so severely at the hands of their captors, as to be unsuitable for exhibition. Under such circumstances it is usual to suggest that they should be offered to the frog, a proposal which is always acceptable.

Among the most striking exhibits is the series of historic models, illustrating the six chief types of people who formed permanent settlements in North America. These were the Spanish, French, and Dutch, while from England came three different types, the Cavalier, the Puritan and Pilgrim, and the Quaker. The first to be attempted was the homestead of a Dutch "patroon"; the building was copied from an old farm house dating from 1640, and the costumes of the settler and his wife were copied from Elizabeth M 'Clellan's, *Historic Dress in America*. The model illustrating the Spanish type represents a portion of the ambulatory of one of the mission buildings, which the Franciscans erected in California and the South-west. It opens on a garden where a friar listens to the plans of a young Spanish soldier who has sketched a proposed route on the gravel path-way.

These models are the work of Miss Bower, and the ingenuity and delicacy with which every detail of furniture and fittings has been supplied must be seen to be believed.

The resources of the Institution include an apparatus for wireless telegraphy which has been installed by the boys, under the direction of Miss Lee. The receiver is in her office—a room of such small dimensions that one wonders how it is possible for Miss Lee and her young helpers with their apparatus to find room in it. Messages can be received from distances of several hundred miles, though they cannot be sent beyond a much more moderate distance. One or

two of Miss Lee's pupils have become proficient enough to secure summer situations on the passenger steamers plying down the coast.

No account of the Children's Museum could be complete without a reference to its well-selected and carefully organised library, under the charge of Miss Miriam S. Draper.

In August, 1823, a company of gentlemen met in Mr. Stephen's tavern, to discuss the question of establishing a library for apprentices in "the village of Brooklyn." As a result the "Apprentices Library Association" was formed, and was stated to be "for the exclusive benefit of the apprentices of the village for ever."

Extended to minors of both sexes in 1843, and known thereafter as the "Youths' Free Library, 1870," the library was opened daily, adults were admitted on payment, minors free. Later it was made free to all and became known as the "Brooklyn Institute Free Library." It was damaged by fire in 1890, and after a few years a new start was made as the "Children's Museum and Library," on April 23rd, 1900, with 500 books in two cases.

Four years later it had 3,400 in two rooms, and what it may now possess I could not estimate. It contains all books that either children or the museum staff are likely to want on natural science, and is probably the largest collection of books of this kind in the city. The reputation it has achieved may be judged from the fact that in one month five librarians visited it for the express purpose of selecting titles to add to their own libraries. It is intelligently used too by its clientèle. One day a girl came to find out "What important industry was the cause of contention between this country and France, and England for the past three hundred years?" On being asked a few days after whether she had found what she wanted, she answered proudly that she was the only one in the class who had succeeded in finding out that the fisheries were the subject in question.

On another occasion, a little boy of eight enquired for a book on boat building, remarking "he used to know a good

deal about building boats, but he had forgotten a lot and so wanted some books to look it up."

Almost every day a simple illustrated lecture is given either by Miss Gallup or Miss Lee, on some branch of natural or physical science, and on important anniversaries, addresses dealing with the subject are delivered. Unfortunately the lecture room is very small, only seating about 65, and on one occasion it was necessary to repeat the lecture on "George Washington" five times to as many eager audiences.

Such very briefly is the mechanism of the Children's Museum at Brooklyn, but the soul and motive power is in the curatorial staff. An hour's conversation with Miss Gallup or Miss Lee will enable one to understand better than any detailed description why it is that this institution has been such a brilliant success, and will show what is the first essential step to be taken if we wish to emulate their achievements.

Museums and Local Natural History.

BY S. L. MOSLEY.

THE British Association recommends that the first object of a provincial museum should be the products of its own district. We have adopted this principle at Keighley. Our district is the whole drainage of the Aire above Bingley, and I should like to place our method of work before the readers of the *Museums Journal*, with a view to eliciting suggestions from anyone who has a better plan.

First, we procured the inch Ordnance Survey maps to cover the district, and marked out the water shed all round, Then divided up the enclosed area with red lines into one mile squares. Next we got the 6 inch survey map, and made a tracing of the square mile to be worked. This tracing is duplicated by the mimeograph process, and a

copy given to each worker. We go over this square mile systematically with the map, and note-book in hand. By the use of different coloured pencils and different marks, the position, and distribution, and the relation, tree, and plant, bear to the geology, &c., are shown. One worker deals with plant association, another with birds, another with mollusca, insects, &c. A mile can usually be 'done' on a Saturday afternoon, and I am assisted in this work by local naturalists. We try to visit the same square mile at different times of the year. When it has been worked every month in the year, we consider that square mile 'done.' When most of the miles in the district have been surveyed in this systematic way, and the results shown by colours and signs in the 6 inch survey map, we are hoping that important biological facts will be brought out, and we shall have the basis for a very thorough local natural history.

During these examinations, specimens are collected for the local collection in the museum, and exact data and locality preserved for each. Thus, in time, local variation will be apparent, as the specimens from different miles come side by side, and the other details on our maps—geological, meteorological, &c., will help us to find the solutions as to the causes of these variations.

During holiday times, a temporary biological station is set up, and several square miles in the neighbourhood mapped out for investigation. Last Easter we had such a station at Malham, where I was joined by four members of the Accrington Naturalists' Society, and others from Bradford. Some of these kindly came purposely to assist me in the work, but teachers also came to learn, and our work benefits in proportion to their knowledge.

The finished 6 inch survey maps, and the specimens collected, are exhibited in the museum.

Books.

PROCEEDINGS OF THE AMERICAN ASSOCIATION OF MUSEUMS. Records of the Meeting held at the Museum of the Carnegie Institute, Pittsburgh, Pennsylvania, June 4-6, 1907. 8vo., pp. 187. Pittsburgh, Pa., 1908.

This first volume of the Proceedings of our sister association on the other side the Atlantic contains, in addition to the matter indicated on the title-page, a record of the preliminary informal meeting, held at Washington on December 21st, 1905, and of the first meeting at New York, May 15-16, 1906.

The association seems to have started its career under excellent auspices. At the opening meeting there were present no less than seventy-one persons, including some of the best known names in the museum world, whilst forty-five others had by letter given in their adhesion to the movement.

To our own members the chief interest of this publication will naturally lie in a comparison between the constitution and proceedings of the American Association, and our own. The similarity is striking and instructive. To begin with the constitution, the object of the new association is defined as "to promote the welfare of museums, to increase and diffuse knowledge of all matters relating to them, and to encourage helpful relation among museums and those interested in them." As regards membership, what we call "members" are designated "Sustaining members;" they are museums paying ten dollars a year and entitled to send one representative with the power of voting to the conference. "Persons actively engaged in museum work" on paying two dollars a year become "active members," and they only are entitled to hold office. Associate members pay five dollars a year and have no vote. "Any person contributing five hundred dollars or more at any one time shall become a Patron of the association." (It would be very helpful if our association could secure a few such, but so far none seem to have

come forward even in America). Provision is made for the existence of fifteen Honorary members, but hitherto none have been elected.

The governing body is smaller than in our own case; it consists of a President, two Vice-Presidents, a Secretary, a Treasurer, and six members of Council. The first president of the association, under whom the sittings at New York and Pittsburgh were held, was Dr. Hermon C. Bumpus, of the American Museum of Natural History, the president-elect for the meeting to be held in May of the current year was Mr. William M. R. French of the Art Institute, Chicago. The secretary for this meeting was Mr. P. M. Rea, of Charleston, but there is nothing in the present volume to indicate whether he is still in office.

At the meeting held in Pittsburgh, a long discussion took place as to whether the association should start a periodical publication and eventually it was decided to issue only an annual volume, containing the proceedings and papers of the meeting. Here we see repeated a stage in our own evolution:—no doubt the next step will shortly be taken, and the American Association will publish a Journal at regular intervals.

In one respect the sister association sets us a noble example: we observe the members met at 10 a.m., discharged formal business, heard and discussed a paper before 12.30; at 2.30 they re-assembled, heard and discussed five papers, and at 8 p.m., met once more and heard and discussed other five papers. Even after a luncheon party, "as some time remained before the arrival of the train," a session was held in the host's drawing room, and a paper read and discussed! A body which can work at this high pressure is assured in advance of the success it deserves.

The titles of the papers are interesting as showing how similar are the problems which face the museum official both in America and in Europe. "Metallic cases in museums," "Labelling in museums," "Some instructive methods of bird installation," "The exhibition of large groups," "museum records," "The evolution of museums,"

"The aim of a public museum," and "The municipal support of museums," are some of them. The discussions seem to have been very vigorous, and the various speakers must have attained an unusual degree of excellence in coming straight to the point and expressing themselves in short pithy sentences, or else their remarks have been extremely well edited.

In conclusion we venture to make one or two suggestions, the adoption of which we venture to think would increase the utility of succeeding volumes. The printing, get up, and illustrations leave nothing to be desired, and there is an excellent index, but we should like a table of contents at the beginning as well. We would also suggest a more complete separation between the business portions of the report and the papers. The head line repeated at the top of every page is simply "American Association of Museums," this shows a sad misconception of the functions of a head-line; one page should give at all events the place and date of the meeting, and the other an indication of the contents of the page. Having said which we conclude by heartily congratulating our American brethren on the the success of their first venture, and wishing them "God-speed" for the future.

THE PRE-RAPHAELITE BROTHERHOOD: A Critical Monograph, by F. Madox Hueffer. London: Duckworth & Co. 2/- net.

Five men in five years created such a movement in the art world of the mid-Victorian era, that not only shook the souls of artists from their placid contentment in their academic achievements, but gave a new impetus that has permeated the artistic spirit ever since. The greatest artist of the Pre-Raphaelite Brotherhood was undoubtedly Sir John E. Millais, and this is testified by the fact that even that cult could not long restrain his powerful genius and wide talent to one phase of artistic expression. As the author says "Pre-Raphaelism was in his brilliant and delightful career a mere episode, while Holman Hunt the most consistent and persistent of the brotherhood, was a revolutionist

simply because he was temperamentally unable to paint in the older manner, and D. G. Rossetti because he was too lazy to learn it." Thomas Woolner the fourth member made no serious mark as a practising artist, and F. G. Stephens was the literary champion of the movement. Mr. Hueffer in terse epigrammatic phrasing gives in this little book of 100 printed pages, a clear and critical outline of this momentous revolution in the art world, and portrays the personal and artistic character of the members of the brotherhood with luminous insight. He has condensed into small compass the varying influences dominating these men, and leading them all for a time along an earnest line of work that lifted art out of a rut that had been tending to bring it to the enervating level of imitative mediocrity. It is a search light on pre-Raphaelism that makes its motive, purpose, and progress abundantly clear. The excellent illustrations, which number 37, aid in complete realisation of the subject.

THE THOUGHTS OF LEONARDO DA VINCI, as Recorded in his Note-books, Arranged and rendered into English by Edward McCurdy. London : Duckworth & Co. 1907.

Much wisdom is condensed into this little book, which is not concerned with the imaginings of a great artist, but comprises the thoughts of a genius whose grasp of the higher purposes of life has never been excelled. Da Vinci ranged in a masterly manner through the gamut of human knowledge, being painter, architect, author, engineer, geologist, biologist, statesman, not all in turn, but all together, and this book shows he was ethically and intellectually a deep philosopher. He left copious notes on a variety of subjects, many of his manuscripts being preserved in national libraries, including the British Museum and Victoria and Albert Museum, London. An edition of the Note-books of Leonardo da Vinci, was published by Messrs. Duckworth and Co., in 1906. The present volume consists of selections from that work, in the form of thoughts and aphorisms concerning life, nature, and art, abiding blossoms of truth and beauty that will

be useful to all to cull. "In life beauty perishes, not in art," a simple epigram profoundly penetrating, which is a fair sample of the others which stimulate both thought and action. The section relating to art deals more in detail with Da Vinci's method and the source of his inspiration, for though very little of his painting, and none of his sculpture—the true bent of his genius—has been preserved, there can be no question that he was an artist in the very loftiest acceptance of the term. Mr. McCurdy has shown great judgment in the selection here brought together, which is sparkling, inspiring, and vastly instructive. A drawing of the massive head of Da Vinci forms an appropriate frontispiece.

Museum Publications.

Belfast.

"Quarterly Notes," No. 9, include a note on the Earl of Belfast (d. 1827), written on the occasion of the removal of his statue by MacDowall to a new portion in the town hall. Among the other subjects treated are: encaustic tiles, Gaelic crosses, slip ware and ichthyosauri. The two latter articles are illustrated. A list of recent acquisitions is given, and is followed by a short list of books referring to the articles in the first part of the pamphlet. All the subjects dealt with are treated simply and popularly.

Bolton.

The report (1907) on the public museums of Bolton is a pamphlet of remarkable condensation and one which does not contain a superfluous word. Only those who can read between the lines, or who know Bolton's three museums, can realize the large amount of the work so simply and tersely summarized. At the Chadwick museum a great addition has been made to the cases, and a considerable amount of reconstruction is being carried on. The result

is extensive re-arrangement, accompanied by replacement of indifferent or worn-out specimens. The collections will be better and more representative and will also be better lighted and displayed than before. As a beginning the Protozoa have been completely re-arranged and are supplemented by models, drawings and photo-micrographs. A large part of the "Thomasson" collection has been mounted in such a manner as to make it uniform with the "Peoples" collection; the series now contains over 12,000 specimens. To the exhibited collections of eggs and nests two special teaching series have been added—one to shew peculiarities in British eggs, the other to illustrate peculiarities in nest construction. But perhaps the most notable growth has been in the Botanical Department. The purchase of the Mason collection, due in no small degree to the generosity of private benefactors, has placed Bolton high in the list of Botanical museums. Some notion may be obtained of the greatness of this section from the fact that there are over 12,000 sheets of cryptograms. Progress has been made in every department; in that of palæontology several specimens of limuloids have been added as a consequence of the curator's exploration of the Gingham bed at Tonge. Cataloguing on the card system has proceeded rapidly; over 4,500 cards have been added during the past year. Among the additions to the Mere Hall Art gallery are: a water colour by J. R. Warburton (a local artist) and a 14th century marble font by Botticino. At Hall i' th' Wood, an exhibition was held of domestic objects illustrating domestic art of the 16th-18th centuries. These objects, selected by Mr. W. W. Watts and Mr. R. F. Martin, were lent by the authorities of the Albert and Victoria museum.

Brighton.

There has been great activity in every department of museum work during 1907. A special feature has been the arrangement made to secure a more extensive use of the collections by teachers and scholars in the town. Visits of classes are to be encouraged; members of the staff will

help by giving addresses and demonstrations, and in various other ways. Special facilities will be afforded to teachers for consulting books, &c.; and books, specimens and pictures will be lent out under proper restrictions. Considerable work has been done in the General museum notably in the archæological department. The collection of local and general British antiquities has been chronologically arranged from the bronze age to mediæval times. The coins and medals have been brought together and arranged in consecutive series. From April to September wild flowers have been exhibited and have aroused great interest. A series of instructive lectures has been given and has been well attended. Altogether Mr. Toms is to be congratulated on the wide and varied activities of the institutions under his charge. The permanent art collections have been increased, and in the new galleries six exhibitions have been held attended by 114,793 people. The autumn exhibition opened September 26th, 1906 was attended by over 50,000 visitors. It was followed by an exhibition of art and craft work, one of etchings and engravings, of early printed books, of Alpine photographs and by the recent autumn exhibition, the results of which have not yet been published.

Edinburgh.

The esteem in which the Royal Scottish Museum is held by the public is best indicated by the attendance, 543,576—an advance of 92,000 on that of the previous year. The Natural History and Geological Departments have received numerous and valuable additions by donation and bequest: the director, however, deplores the meagre extent of the help given to the Art Collections, especially as the paltry grant made by the Treasury is wholly inadequate. Fortunately the work bestowed by the staff on the Art Department is not stinted. When introducing the cast of the Treasury of Cnidos, Mr. Vallance began the grouping of the objects in the hall according to style and period: a difficult plan to carry out consistently, but one that, when

effected, adds enormously to the value and interest of the collection. The lamented death of Mr. Goodchild in 1906 terminated the arrangement with the geological survey. The Treasury sanctioned the appointment of an officer (Mr. S. J. Schand, B.Sc., Ph.D), to take charge of the geological collections. A number of preparations has been added to the geological type-collection to illustrate the general characters of the vertebrates. Numerous additions have been made to the collection of Egyptian antiquities, largely through Professor Flinders Petrie. A general guide to the collections of the museum has been prepared by the members of the staff, and is now in the hands of the printer. A new edition of the guide to the collection of the geological survey has been issued, revised by Dr. Horne and members of the survey staff.

James J. Dobbie, D.Sc., F.R.S., director of the Royal Scottish Museum, has received the honorary degree of Doctor of Laws from the Glasgow University.

Glasgow.

There are good accounts of all the five museums administered by the corporation sub-committee. The attendance at these institutes, though less than that of the previous year, is still over 1,250,000. Several valuable donations have been received, among them a forest scene by James Stark. The purchases of pictures, in making which the committee has shown even more than its usual liberality, include Millais' "Ruling Passion," and William James Muller's "Treasure Finders." An exhibition of Holman Hunt's works was held with striking success; during the month that it was open, it was visited by nearly 100,000 persons. The committee expresses its indebtedness to lenders, private and public. At the same time, many loans have been made to other public bodies. The children's annual drawing competition was held for the fourth time, with great success. A great deal of re-arrangement has taken place in the geological and mineralogical collections. Among the additions to these departments are a series of

glass models, illustrating the optical properties of crystals, and coloured models of Arran, Bute, and the Cumbraes. Several models have been added to the engineering section. The salt and fresh water tanks at Tollcross Museum have been got into working order, and are now stocked with interesting specimens of sea and river life.

Hastings.

The history of the corporation museum for 1907 is one of activity and progress. During the spring the Brabazon collection of water colours was exhibited. An illustrated catalogue was published, two editions of which was exhausted. In the summer there was an equally successful exhibition of Roman relics found in the recent excavations at Pevensey. The curator earnestly appeals for further pecuniary support for the institute, also for specimens illustrating obsolete industries of Hastings (e.g., lace-making, boat-building and iron-working) and the past history of the town. He also regretfully calls attention to the congested state of the collections and the necessity for more space for their proper display. This sad plaint will wake an echo in many a museum throughout the Empire.

Norwich.

Work has gone on actively in the Castle museum during 1907, and the usual—though not invariable—criterion of success is not wanting; the attendance has increased from 110,217 in 1906 to 111,509. This increase must not be looked at numerically alone; we must also remember that the summer (?) weather for 1907 was much inferior to that of 1906. Through the generosity of Mr. Geoffrey Fowell Buxton and a few friends, a particularly fine case has been installed, and has been devoted to the exhibition of a group of African antelopes. The year has been marked by the formation of a local Museum Association, founded to increase public interest in the museum collection and in natural history generally. An illustrative collection of rock specimens has been formed to help students in Petrology.

Among recent acquisitions are—an Orang-utan, a collection of Red Sea shells, three volumes of portraits, drawings and prints relating to Sir Thomas Browne, and four pictures by G. F. Watts.

General Notes.

PREPARATION AND MOUNTING OF FOSSIL SKELETONS.—In the *American Naturalist* for January, 1908, Mr. Adam Hermann, Head Preparator, Department of Vertebrate Palæontology, American Museum of Natural History, has a brief paper on the modern methods employed in that museum. It cannot be said that the paper contains anything strikingly novel, and Mr. Hermann is himself so eminent a preparator that, like many another skilled worker, he does not always give just those details which would be most valuable to his less experienced colleagues. For the saturation and hardening of soft bones in the field, a solution of shellac is used in preference to gum-arabic; it penetrates better and is not affected by wet. Brown shellac dissolves the more easily and is stronger, but for light-coloured bones white shellac is preferable, to avoid discoloration. For restoration work Mr. Hermann advocates the mixing of plaster in a solution of yellow dextrine which can easily be dissolved in boiling water, the right strength being indicated when the solution is of a light coffee-colour. In modelling missing bones, Mr. Hermann takes a bone of similar shape to the one required and makes a rough cast of it in a mould of modelling clay or plasterine (? what we call plasticine). The bones are slightly coated with glycerine and pressed loosely into the mould so that they can be lifted out without changing its shape. The plaster cast taken from the mould is modified by subsequent sculpturing. For the mounting of skeletons, Mr. Hermann recommends bands of flat or half-round soft steel. Bands may be fastened to the bones by small screws; a hole is drilled in the bone, and a brass tube, in which a thread is cut, fastened in the hole with a mixture of shellac and whitening. A laboratory for a first-class museum should be fitted with many modern labour-saving appliances, such as a pneumatic chisel, an electric drill, rotary saws, turning-lathe, diamond saws, and a small gas blast furnace, all driven by electric motors. The laboratory at the Ameri-

can museum of Natural History has an overhead rail on which trolleys with hoisting blocks attached can be rolled freely to and fro, so that skeletons can be raised or lowered, or moved from one end of the room to the other.

AT HOME.

BRITISH MUSEUM.—The electing committee of trustees has elected Lord Collins, P.C., a trustee of the British museum.

The fine collection of fishes from the Indian Ocean, made by Mr. J. Stanley Gardiner during his recent expedition, carried out under the auspices of the Sladen Fund trustees, has been presented to the British museum (natural history). Some of the fishes, dredged at great depths, present quite remarkable forms, and many are new to science. The gift also includes an important series of reptiles obtained by Mr. Gardiner in the Seychelles, Chagos, and other islands in the Indian Ocean. A full report of the scientific results of the expedition, which also was greatly assisted by the Admiralty, is being prepared by Mr. Gardiner.

A MUMMY UNWRAPPED.—There was unwrapped, at the Manchester Museum last month, the mummy of Khnumu-Nekht, an Egyptian Priest of the 12th dynasty, who lived about 2,500 years before the Christian era. The contents of the tomb of Khnumu-Nekht, his brother, were acquired from the British school of archæology in Egypt, and were discovered by Professor Flinders Petrie during investigations at Rifeh in Upper Egypt. The ceremony of unswathing the body was superintended by Miss M. A. Murray, of University College, London, who has recently been lecturing in Manchester on Egyptology. The mummy was swathed in several layers of bandages, and did not appear to have been embalmed. The skeleton, with some fragments of skin attached, was found intact, and its investigation, which has been undertaken by Dr. Cameron, of the University Anatomical Department, promises to yield most interesting results.

THEFT AT BURNS MUSEUM, KILMARNOCK.—The Burns Monument and Museum in Kay Park, Kilmarnock, has been broken into. The museum contains a collection of Burns' manuscripts and the various editions of the poet's works, including a valuable library of the late Mr. James M'Kie. The police are reticent, and no definite information has been obtained, but it is said that a copy of the first edition has

been stolen. A broken window and the finding of a jemmy led to the discovery of the alleged burglary.

LIVERPOOL'S ART HISTORY.—An historical exhibition was opened in the Walker Art Gallery on May 23rd, of works of art by Liverpool artists, past and present.

BOSTON GUILDHALL, LINCOLNSHIRE.—The Boston Town Council, having received a liberal offer toward the establishment of a local museum, is considering the purchase of the ancient Guildhall for the purpose. This building was erected in the fifteenth century, and is in good preservation structurally. After being controlled by guilds, it came into the hands of the corporation, but various abuses arose, and the Municipal Reform Act of 1835 transferred it to a charitable and educational trust. Although the most ancient building in the town, apart from the famous church, the Guildhall has latterly become a furniture store, yielding about £30 in rent.

THE NATIONAL ART COLLECTIONS FUND.—The Fourth annual report of the National Art Collections Fund, which has just been issued, records no striking acquisition during the past year, though several objects of art of great interest and of no little value have been secured for the nation. They include an oil painting by Sir David Wilkie, R.A., entitled "A Picnic." It is one of the few landscapes that Wilkie executed, and represents a park scene on a river bank, with a group of figures; It was presented by Sir J. C. Robinson, C.B., F.S.A., and now hangs in the Tate Gallery. Curiously enough, another acquisition is also one of the rarer works of another great artist. Alfred Stevens did not paint twelve portraits all told, and that of the late John Morris-Moore was one of the first, being painted in Florence when Stevens was only 22. An anonymous member of the fund presented Mark Fisher's "The Halt" to the Birmingham Corporation Art Gallery, through the fund, in January of last year. An object of exceptional rarity has been secured for the British Museum in the shape of a large panel of whale's bone of the Carolingian period, and carved in relief with King David dictating his Psalms. Other acquisitions include some sixteenth century Italian lace, a collection of engraved designs by Paulus Flindt, an exceptionally fine specimen of a twelfth century "draughtsman," five lustred Persian tiles, a collection of 150 etchings by Alphonse Legros, and some of Alfred Stevens' drawings. The balance sheet shows that £550 was spent in purchases during the year, the total expenditure being

£834 odd, and the total income £1773 6s, 3d. A heavy excess of expenditure over income in 1906 had to be made up, however, and there is, consequently, a slight overdraft at the bank for £63 odd.

BRADFORD ART GALLERY.—The committee of this gallery have just purchased for the large sum of £945 the picture of "Indian Leopards," by J. M. Swan, and also a picture of "Portsmouth," by J. Buxton Knight, for £80.

THE ROYAL SCOTTISH MUSEUM.—The Royal Scottish museum has recently received several interesting additions to its art and ethnographical department. Lord Dunedin has given an ingeniously constructed model, or rather a number of models in one, showing to scale the forms and relative sizes of all the English cathedrals. Colonel Robertson, C.B., Callander, has added to his former gifts to the museum several objects illustrative of old Norwegian domestic life; and Mr. E. Murray Tod, of Bristol, has sent several specimens of old Bristol pottery, to supply deficiencies in that section of the museum collection. These are carefully selected objects in ware and glass, all illustrative of the local industry in the second half of the eighteenth century.

ANCIENT DRAWING OF THE KING CRAB (LIMULUS).—In the British Museum (natural history) has been placed a water-colour drawing made about 1585 which contains what is believed to be the earliest representation of the American king crab (*Limulus*). The original drawing was made by John White, who was one of the first settlers in Virginia, and acted as lieutenant to Sir Walter Raleigh on several voyages to North America. For a time he was governor of Virginia. The drawing in which the king crab is introduced is a view of Indians spearing fish, and the specimens of the king crab are roughly but quite unmistakably sketched among shells and other marine objects lying on the beach in the foreground. A description by Thomas Harriot appears in his "Brief and True Report of the New Found Land of Virginia," which was translated into French in order to accompany some engravings in De Beys "America" published in 1590. In Harriot's list of the natural products of America he mentions "Seakanauk, a kinde of crusty shell-fish, which is good meat, about a foot in bredth, having a crusty tail, many legs like a crab, and her eyes in her backe. They are found in shallows of water and sometimes on the shore." This, doubtless, refers to the king crab.

GLASGOW ART GALLERIES.—Mr. Andrew T. Reid, who has been a liberal donor to these galleries, has shown his continued interest in them by presenting Albert Moore's picture "Reading Aloud."

SPALDING PROPOSED MUSEUM.—The Spalding Gentlemen's Society—the oldest antiquarian society in England—are proposing to build a museum to celebrate their bi-centenary. Subscriptions to the amount of £460 have been promised towards the object in view.

MUSEUM IN WESTMINSTER ABBEY.—A public museum is to be opened at Westminster Abbey, where some of the things which were either hidden away altogether from the public eye or were difficult of access are to be collected together in one place where they can be readily inspected. An unused crypt in the cloisters immediately under the monks' dormitory has been chosen for this purpose. The floor has been laid with tiles, and the electric light has been installed, and when the alterations are completed it will form a convenient chamber in which to exhibit a number of treasured relics.

ADDITIONS TO THE TATE GALLERY, LONDON.—At the annual meeting of the national art collections fund, Mr. Lewis Harcourt, first commissioner of works, announced a splendid gift offered to the country, which he had accepted, from Mr. Duveen, senior. He had just concluded a formal arrangement for the presentation of a new wing to the Tate Gallery, a wing which would contain five galleries, with smaller rooms below suitable for students' work, and the trustees of the national gallery had agreed that when this building was completed there should be placed in it, on loan, the larger part of the great Turner collection of pictures, water-colours, and drawings, for which there was not sufficient room in Trafalgar-square, reserving, of course, an adequate representation of all classes of Turner's work for retention in the national gallery. He believed that by doing that they had attained to the nearest possible fulfilment of Turner's own desire as to the disposition of his bequest—namely, that all his works should be gathered together in one gallery, so that they might form a coherent whole. And he was not without hope that other collectors would be induced in the future to contribute further examples of Turner's work. He was glad to take this as the earliest and most fitting opportunity of tendering to Mr. Duveen the grateful thanks of the public and of all art lovers for his splendid gift to the nation.

SCULPTURE FOR THE ROYAL SCOTTISH MUSEUM.—The Royal Scottish Museum has recently acquired a large collection of casts of classical sculpture, which are now set out in the west half of the great hall. Until a few months ago nearly the whole of these casts formed part of the Perry collection, in the Victoria and Albert museum, South Kensington, but the authorities, in view of the rearrangements following upon their occupation of the new building, which is now almost completed, decided to relinquish this collection, and it was transferred to, and shared between, the British museum and the Royal Scottish museum. An addition to the Edinburgh collection of over seventy specimens has thus been provided, some of them, such as the friezes from the Parthenon, from Phigaleia, and from the mausoleum, extending to such dimensions as to demand considerable space for their exhibition. The collection of casts has recently had two further important additions by purchase—the Treasury of the Cnidians from Delphi, which occupies the centre of the hall opposite the entrance to the museum, and a portion of the Great Frieze from Pergamos. As now set out the sculptures naturally fall into two divisions—the one formed by the examples of Archaic art from the pre-Pheidian period, the other the works of the fully developed sculpture of the time of Pheidias and after. Professor Petrie writes to Dr. Dobbie, director of the museum: "As you are aware, it has been impossible in recent times for museums to obtain large examples of Egyptian temple sculptures owing to the very proper steps which are now taken for the conservation of the buildings. But this year we have discovered a partly ruined temple with disconnected scenes and figures of the same age and subjects as those of the well-known complete temples of Denderah and Edfu. This gave the opportunity to secure some large examples of sculpture, and Professor Maspero consented to the removal of an entire figure for the Edinburgh museum. The figure is that of Ptolemy Auletes (XIII.) standing with his "Ka" figure behind him. It occupies a space of 7 feet 2 inches high and 5 feet 2 inches wide, and is comprised in more than a dozen blocks of stone. It is carved in limestone, and has much of the colouring still remaining upon it, and the surface is generally in good condition. There are very few examples in Europe of a complete wall sculpture removed entire, and this figure will give a good notion of the manner and character of the great temple scenes."

OKAPI FOR DUBLIN.—A young male Okapi, which was captured last year, has been mounted and is exhibited in the natural history division of the Irish National museum.

SWANSEA ART GALLERY.—The poll of the burgesses of Swansea, taken on the question whether they will submit to a farthing rate for the maintenance of the art gallery which Mr. Glynn Vivian (brother of the late Lord Swansea) has offered to erect at a cost of £10,000, and to equip with a large collection of works of art, has resulted as follows :—For, 9,322 ; against, 3,887—Majority for, 5,435. At a previous poll on the same question Mr. Glynn Vivian's offer was rejected by a large majority.

PICTURE PUZZLES.—The strange story of the discovery of a painting by Rembrandt, under another picture, needs tracing back beyond the auction at which Mr Humphry Ward bought it. Why did a previous owner deliberately use a genuine Rembrandt as a canvas on which to paint another picture of sufficient merit in itself to fetch the respectable sum of £250 ? We hardly dare suggest that, as art, the portrait Mr. Ward bought was superior to the Rembrandt Professor Hauser discovered beneath it. But the whole story recalls certain facts that came out in Paris not long ago. A French artist, travelling in Italy, purchased for a small sum what appeared to be a fine painting of Titian. When about to return to Paris he remembered that, under the Italian law forbidding the export of art treasures, his Titian would be confiscated at the frontier. So in a hasty manner he painted a portrait of the King of Italy over his Titian, and had no trouble with the customs. Arrived in Paris he lost no time in cleaning off Victor Emmanuel ; but the four-century old Titian also disappeared during the operation, and beneath it the artist-expert discovered the original painting—a charming portrait of General Garibaldi in the famous red shirt.

NATIONAL GALLERY, LONDON.—The report of the director of the National Gallery for the past year contains some interesting figures. Eight pictures were purchased ; forty-one pictures were presented ; eighteen pictures were lent ; thirteen pictures were repaired ; 567,659 people visited on free days ; 57,941 visited on students' days ; 43,618 visited on Sunday afternoons ; £1448 10s 6d was taken in admission fees ; £628 7s worth of catalogues was sold. Among the year's purchases were two Vandycks, "Il Marchese Giovanni Battista Cattaneo" and "La Marchesa

Cattaneo", "The Ship," by Holman Hunt, was presented by a body of subscribers. Several of the rooms at Trafalgar Square have been re-hung during the year, so as to carry further the arrangement of the pictures in schools, and, as far as space allowed, the pictures have been arranged in chronological order. In 1903 the trustees were informed of a large bequest to the gallery by the late Colonel Temple West, but, as the will was disputed, it was necessary to refer the matter to his Majesty's Treasury. In the course of the past year a satisfactory arrangement was reached by the solicitor to his Majesty's Treasury, and sanctioned by the High Court; and up to the present date a total sum of £94,805 9s. 1d. has been received on account of capital, and £1,261 8s. 3d. on account of interest, and the capital sum has been invested. Only the interest of this capital sum is available for the purchase of pictures. The National Gallery of British Art at Millbank (the Tate Gallery) has been visited by 292,816 persons on the free days during the year, and by 38,827 persons on the Sunday afternoons on which it was open. On students' days 40,222 were admitted the fees amounting to £1,005 11s., as compared with £1,205 3s. 6d. of the previous year. The admission fees at Trafalgar Square realised £135 15s. 0d. less than in 1906. An interesting collection of Turner relics has been lent for exhibition at the Tate Gallery.

VICTORIA AND ALBERT MUSEUM, LONDON.—The Board of Education, in its report for the year 1906 on the Victoria and Albert Museum, state that 909 objects were acquired during the year for the art museum by purchase, gift, or bequest. The principal purchase in the sculpture section was a pair of painted ivory caskets (Hispano-Moresque), thirteenth or fourteenth century, for which £80 was given. In the section for textile fabrics, embroideries, and lace £250 was given for some English (Soho) tapestry of the first half of the eighteenth century woven on wool and silk with Chinese subjects, while a similar price was paid for a sixteenth to eighteenth century Persian satin brocade robe of satin damask with figure subjects, and an embroidered silk prayer mat. The sum of £397 was paid for a panel of stained and painted glass with the arms of Klingenberg (Swiss), first half of the sixteenth century, and £300 for a pair of early seventeenth century English enamelled brass candlesticks, both these exhibits being placed in the ceramics, glass, and enamel section. Two paintings in water-colours, one in oils, and one cartoon were received by gift; and seventeen water-

colour paintings (including five miniatures) and one painting on plaster were purchased. One of the principal purchases for the art library during the year is described as follows: "Manuscript. The art of limning, ether by ye life, landscip or histories, 1664, 1685. Vellum binding with the arms, as Bishop of Lincoln (1621 to 41), of John Williams, Archbishop of York." Another early work purchased is: "Wedgewood (J). An address to the workmen in the pottery on the subject of entering into the service of foreign manufacturers, 1783." The gifts include: "Bible. Textus Biblie. Cuts. Fol. Lugduni, J. Crespin, 1529. Addition to the collection of books from the library of the late Lady Dilke; given by Sir Charles Dilke, Bart., M.P." The most remarkable feature, it is stated, during the year was the large increase in the number of examples issued on loan to schools and classes which was partly due to the facilities offered to masters for visiting the museum and making their own collections. Ten years ago the number of objects on loan was 6,696, and in 1906 it was 24,081. The additions to the Science Library for the year 1906 comprise 913 volumes. At the Royal College of Science there were 317 individual students, and at the Royal College of Art 140 men and 61 women students.

NATIONAL MUSEUMS AND THE GOVERNMENT.—Mr. Lewis Harcourt, first commissioner of works, recently stated that the great new buildings of the South Kensington Museum were approaching completion. He would not enter on any vexed question as to their external elevation, but he was quite certain that when the public saw the noble halls and galleries and the way in which they were being fitted, they would appreciate one of the greatest advances which had been made for many years in this country for the exhibition of that art in which we were so rich. He was glad to say that he was at this moment constructing a great new block for the British museum. When that building was complete we should have at least a decent exhibition of the great treasures which the museum contained. Perhaps they would be more interested still in the enlarging and greater protection from fire of the National Gallery and the National portrait gallery. He was again adding a new wing to the National gallery. But a still more important decision had been come to within the last few months. He had now taken the final steps for the total and absolute removal from the neighbouring site of the last remnants of St. George's barracks and the recruiting station, so that in the

future more room would be afforded both to the National Gallery and the National portrait gallery, which was now disgracefully overcrowded. He was considering whether any external and structural alterations in the existing buildings were necessary to minimise the risk of fire, which was always a nightmare to those who had charge of the safe custody of the buildings.

OXFORD MUSEUM AMALGAMATION.—At the Oxford Convocation, on May 9th, a statute passed its first stage without opposition, to unify two establishments already under one roof and under one board of visitors—namely, the art galleries of the university and the Ashmolean museum, which some years since was transferred from the beautiful old building known under that name to the Randolph galleries. These are henceforward to be the art galleries, to which a portion of the Fortnum collection will be transferred, an antiquarium, a department of classical archæology and art, with other possible departments. The heads of the existing departments will be the keeper of the art galleries, the keeper of the antiquarium, and the Professor of classical archæology and art. The whole will be designated the Ashmolean museum. and the keeper of the museum may be either the keeper of the art galleries or the keeper of the antiquarium. An appeal from the minority of the visitors to the Hebdomadal Council is to be permitted, which the Master of University said was regrettable, in his view, but it was a compromise. The whole proposal he hoped, would work for harmony.

MUSIC HATH NOT ALWAYS CHARMS.—Mr. Vincent J. Cooper, hon. secretary of the Cremona Society, writes :—“Twelve months ago considerable publicity was given in the press generally to the subject of the ‘Oldham bequest,’ consisting of a priceless collection of art treasures in the shape of Stradivari instruments left ‘to the British nation,’ by the late Mr. C. J. Oldham, F.R.C.S. I am desired by my council, as voicing the wish of the members of our society, to ask you to be so good as to now give equal publicity to the fact that the bequest was declined by the trustees of the British museum in May 1907, the public not being informed, and, further, that the bequest was privately sold the following month, the proceeds being distributed to the residuary legatees. Naturally, my council does not desire me to comment on the action of those concerned, as it is possible that satisfactory explanations may ultimately be forthcoming. The fact remains, however, that the news

will prove a great disappointment to a very large proportion of the fiddle-loving world, amateurs and others alike."

ROMAN COFFIN FOR EDMONTON—There has just been presented to the Edmonton public library a stone coffin which was found some time ago in a brickfield in Lower Edmonton, and which there is reason to believe dates back to the Roman occupation of this country. It is suggested by the authorities of the British museum that the land where the coffin was buried was the site of a Roman cemetery, and that other valuable discoveries may be made. Already pieces of pottery, glass vases, and spear heads have been dug up near at hand. The lid of the coffin was unfortunately smashed by the workmen who first came upon it, and the fragments have disappeared.

NATIONAL GALLERY, LONDON.—At the National gallery two additions have been made to the collection of pictures by artists of the French school. The larger is an unfinished portrait by Jacques Louis David, of Elisa, Grand Duchess of Tuscany, sister of the first Napoleon. The second French picture is a very small portrait of Madame Malibran, tentatively ascribed to Ingres.

SCOTTISH ART AT EDINBURGH—A CHRONOLOGICAL EXHIBIT.—By confining the fine art section of the Scottish National Exhibition to Scottish painters, the promoters have been able to concentrate their efforts, with the result that there has been secured probably the finest and most representative collection of Scottish painting that has ever been thrown open to the public. In the large, well-lighted building reserved for the fine arts there is presented a history of Scottish art, with whose richness and living interest no written volume could compete. A feeling of national pride may be readily pardoned to the Scottish visitor after viewing the works hung in the suite of rooms. Apart from the interest pertaining to the works of art in themselves, the exhibition has a special historical interest. This quality is enhanced by the manner in which the Hanging Committee have arranged the exhibits. The development of Scottish artistic ideals and practice may easily be followed from the early days of James I. down to the present time. The pictures are hung in a general chronological scheme; while in the central hall outstanding works of all periods are associated in a sort of *precis* of the whole exhibition. The importance of the loan collection will be seen from the fact that it includes 585 oil pictures, 175 water-colours, and 291 black and white drawings—the latter of more than ordinary

interest—and that the amount for which it is insured is £240,000. In addition, there are two galleries to the south devoted to sale pictures, which number 293 oils and 224 water-colours. There are also arranged in the various galleries about sixty examples of sculpture.

THE ANTARCTIC SEALS IN THE ROYAL SCOTTISH MUSEUM.—On the return of the Scottish National Antarctic expedition, Dr. Bruce, its promoter and leader, presented to the Royal Scottish museum, among other valuable natural history specimens, a complete set of the skins of all three seals known to inhabit the seas of the South Polar regions. This collection now forms one of the most attractive exhibits to be found in the natural history department of the museum for not only have these specimens been mounted in characteristic attitude by Messrs. Rowland Ward, of London, from photographs taken of the animals in life by members of the expedition, but an endeavour has been made to show them amid their natural surroundings. This last feature is a new departure in museum methods hitherto adopted in Edinburgh, and has been successfully carried out by Mr. Charles Kirk, of Glasgow, who has also worked from photographs and from actual Antarctic rocks and lichens supplied by Dr. Bruce. This imposing collection has few rivals, and is second to none in completeness and importance, and forms a fitting monument to the remarkable zoological success achieved by the Scottish expedition.

MANCHESTER ART GALLERY.—The permanent collection of paintings in the Manchester City art gallery will be enriched shortly by the addition of several examples of the Dutch and Italian schools. By the will of the late Mr. Richard Henry Wood, of Belmont, Sidmouth, who died on the 25th ult., the city comes into possession of a portrait in oils of the late Cardinal Newman and two engravings of the same eminent ecclesiastic. Consequent upon Mr. Wood's death there will also come to the gallery six pictures which were bequeathed to the corporation by the late Mrs. Wood, in memory of her father, Mr. Hatton. Four of the paintings are of the Dutch school—representing the works of Rubens, Cuyp, Teniers, and Adrian Van Ostade. Another is by the Italian painter Correggio, and the sixth picture is a portrait of the late Mr. Hatton by Robertson, of Liverpool. The gallery has been further enriched by the addition of "Springtime," by J. W. North, A.R.A., which has been purchased by the art gallery committee; "Constantinople and the Golden Horn from the

Turkish cemetery at Eyoub," by John McWhirter, R.A.; and "Just Arrived by the Sloop," by H. Clarence Whaite, P.R.C.A., the gift of Mr. F. Smallman.

ROMNEY MUSEUM.—The Furness Railway Company, who are now the owners of the house in which George Romney, the great painter, once lived, which is situated on the outskirts of Barrow-in-Furness, have obtained powers to renovate and repair it, and it is their intention to create a museum on the ground floor. The house is small, and occupies a high position commanding a fine view of the Duddon estuary and the Irish Sea. It was sold to a local builder, who was going to pull it down, when the railway company stepped in. The museum will be 30 ft. by 16 ft., and it is hoped to secure as many relics of the great painter as possible, including some of his works. Romney, who attended school in the district, is buried at Dalton-in-Furness, which is a few miles from this house.

NEW PICTURE GALLERY AT BURNLEY.—The beautiful park and mansion of the Towneley family on the outskirts of Burnley, came some years ago into the possession of the Burnley corporation, and were thus saved from any possibility of falling under the ravages of the jerry builder. To Towneley Hall, which serves as an art gallery and museum, the corporation has just made an extension, which was opened in April, by Lord O'Hagan. Formerly the pictures in the museum were shown in rooms on the ground floor, which were very unsatisfactory as regards lighting; the addition now made consists of a long gallery on the upper floor with an excellent top light.

ASHMOLEAN MUSEUM, OXFORD.—Some interesting additions have been made to the Ashmolean museum by the British School of archæology in Egypt, directed by Professor Petrie, and by the Egypt Exploration Fund, whilst the keeper has been able to make further additions to the Cretan collection. The classical section has received notable additions through the purchase of an inscribed votive figure of bronze from Dodona. New College has transferred to the museum on loan its collection of Roman coins. Under the will of the late Mr. Hartwell de la Garde Grissell, of Brazenose College, Perpetual Chamberlain to the Pope and a constant friend of the museum, his valuable collection of Papal coins has been bequeathed to the museum. The collection consists of nearly 1,000 coins in gold and silver.

OBITUARY.—Caleb Barlow, who died on May 8th, aged 67 years, from heart-failure following an operation, entered

the service of the trustees of the British museum as a mason, in 1874, and had long been the head preparator of the geological department. His first noticeable piece of work was the development of the skeleton of *Omosaurus urmatus* from a huge septarian block found in the Kimmeridge Clay at Swindon. He soon acquired a wide knowledge of osteology and became proficient in the restoration of skeletons. The fine series of extinct mammals, birds, and reptiles in the national collection forms an enduring monument to his ability and to his ingenuity in devising metal mounts for the skeletons. The complete articulated skeletons of *Plesiosaurus* from Peterborough, are illustrations of patience and skill not excelled in any museum. Fortunately the severe loss to the British Museum caused by the death of Mr. Barlow, is mitigated by the fact that an appropriate successor is ready in his highly trained and skilful son, Mr. Frank O. Barlow. But the personality that has passed away is less easy to replace, for all who were brought into contact with Caleb Barlow regarded him with respect and affection.

ABROAD.

METROPOLITAN MUSEUM OF ART, NEW YORK.—It is announced from America that Mr. Roger E. Fry has been made European adviser to the Metropolitan museum of New York, and that Dr. W. R. Valentiner has been appointed curator of Decorative Arts in the same institution. Dr. Valentiner has done excellent work under Dr. Bode and assisted Dr. C. Hofstede de Groot in the compilation of the new edition of Smith's "Catalogue Raisonné" of Dutch Painters.

MUSEUM RESEARCH WORK.—The American museum of natural history in New York is sending out an important scientific expedition to Vancouver Island for the purpose of spending several months at the whaleing stations on that coast. The work will consist of securing photographs, notes, and measurements, which will furnish the data for a preliminary study of the Pacific species of whales. The expedition will also endeavour to obtain several skeletons of the Pacific whales for the American museum.

A MUSEUM OF SPANISH WORK, NEW YORK.—A new museum of the Hispanic Society of America has recently been opened. This handsome building of Indiana limestone, which stands in Audubon Park, New York, contains

the notable Spanish art collection, library, and historical objects gathered during the last eighteen years by Mr. Archer M. Huntington, son of the late Mr. P. Huntington, the railway builder. The younger Mr. Huntington endowed the Hispanic Society; gave it the land upon which the museum is built, and then turned over to the society all his Spanish treasures, which are in several respects among the most important of the kind in the world.

BOGUS PICTURE MANUFACTORY.—Much interest has been aroused in art circles by the discovery in Munich of something like a factory for the manufacture of bogus pictures. Artists of all nations would appear to have been plagiarised, and one of the most recent of British victims is Mr. Clausen, R.A. It appears that these pictures are painted in Munich and then exported to England and America, where they are sold for large prices. The matter is now in the hands of the public prosecutor at Munich. One effect of the discovery is that serious damage has been done to the legitimate art trade of the German city. Munich has long been known as an art centre, and many of the most famous dealers in the world have branches there. Naturally suspicion has fallen on nearly all pictures that come from the city, and the honest dealers are suffering for the sins of the dishonest.

A BALZAC MUSEUM.—A number of well-known authors, artists, and actors have inaugurated a museum in the house which Balzac occupied from 1843 to 1848, which is to contain the relics and manuscripts of the great author. The house is situated on the crest of the hilly part of Passy which faces the Eiffel Tower, across the river.

PROBABLE MUSEUM AT RAUEN.—In the surrounding country of Rauhen, a village in the district of Potsdam, near Berlin, there has recently been discovered what may be the largest known prehistoric burial ground of a Germanic population. The foundation of a museum, therefore, has been contemplated in the village of Rauhen.

AMERICAN MUSEUMS ASSOCIATION.—The meeting of the American Association of Museums was held in Chicago during the past month, on May 4th, 5th and 6th. The members of the Association were guests of the Chicago Art Institute, Field Museum of Natural History and the Chicago Academy of Sciences, and meetings were held at these institutions on consecutive days. About sixty members of the Association were present, representing

the principal museums of the United States, coming geographically from a region lying between St. Johnsbury, Vt., and Charleston, S.C. on the one hand and St. Louis, Kansas, Nebraska and Utah. A notable feature of the discussion was the importance assigned to the museum in educational work and its relation to the public schools. In this respect the Children's Museum of Brooklyn represented by Miss Anna B. Gallup, holds the most important place, and is recognised not only in America, but also in Europe. Frequent reference was made to this museum in the various discussions and it is to be hoped that the city of Brooklyn will be able to provide better quarters for it at an early date, and so maintain its high reputation. Another point brought out was the relation between museums of art and museums of natural history. A motion on the part of the officers of art museums to have a section apart was so earnestly opposed by the members of the natural history museums that it was abandoned and instead a definite time was allotted for the hearing of art papers. On the second day there was a discussion on museum buildings, which was illustrated by plans of the proposed Field Museum, which were described at length by Mr. Theo. Lescher. Much time was also given to museum cases, labels and methods of installation. The officers elected for the ensuing year were Dr. W. J. Holland, president; F. A. Lucas, first vice-president; F. J. V. Skiff, second vice-president; W. P. Wilson, treasurer and Paul M. Rea, secretary. The Association meets next year in Philadelphia and in 1910 in Buffalo. The reason for naming a place so far in advance of the date of meeting was due to the very cordial welcome extended by Mr. Kurtz on behalf of the mayor, the Chamber of Commerce and all the educational institutions of Buffalo.

Correspondence.

To the Editor of *The Museums Journal*

The Manchester Museum, Manchester, England.

May 30, 1908.

In the recently-published "Proceedings of the American Association of Museums" (page 45) my friend Mr. Lucas is reported to have contributed to a discussion an amusing story in regard to one of the labels of the Manchester Museum attached to a lion. The

incident is related on the authority of Dr. Bather, but that gentleman informs me that he does not remember hearing the story before. Unfortunately, Mr. Lucas does not state definitely whether the museum which exhibited the label was in Manchester, Col., Conn., Ill., Ind., Iowa, Kan., Ky., Mass., Mich., Minn., N.C., N.H., N.J., N.Y., Ohio, Oklahoma, Ont., Tenn., or Vt. It certainly was not in Manchester, England, as the context would seem to imply.

Yours faithfully,

WM. E. HOYLE,

Director of the Manchester Museum.

Brooklyn, N.Y.,

June 8, 1908.

To the Editor of *The Museums Journal*.

Doctor Hoyle has kindly sent me a copy of the above letter, and I must frankly confess that Manchester, England, was the city I had in mind. The incident referred to is very vividly impressed upon my mind as having been cited during the discussion of some paper read at an early meeting of the Museums Association, and it was quoted by me in perfectly good faith. The impression is so strong that I can mentally see the very words, "the museum carpenter, a very intelligent man," who propounded the question what the label meant. A hasty perusal of the Proceedings of the Museums Association and *The Museums Journal* has failed to reveal any basis for my delusion, although I still hope to discover its origin. As it may be some time before I am able to do so, let me say at once that I keenly regret having misquoted Doctor Bather or any of the labels of the Manchester (England) Museum, and hereby tender my best apologies to Doctor Bather and Doctor Hoyle for having done so.

Very respectfully,

F. A. LUCAS.

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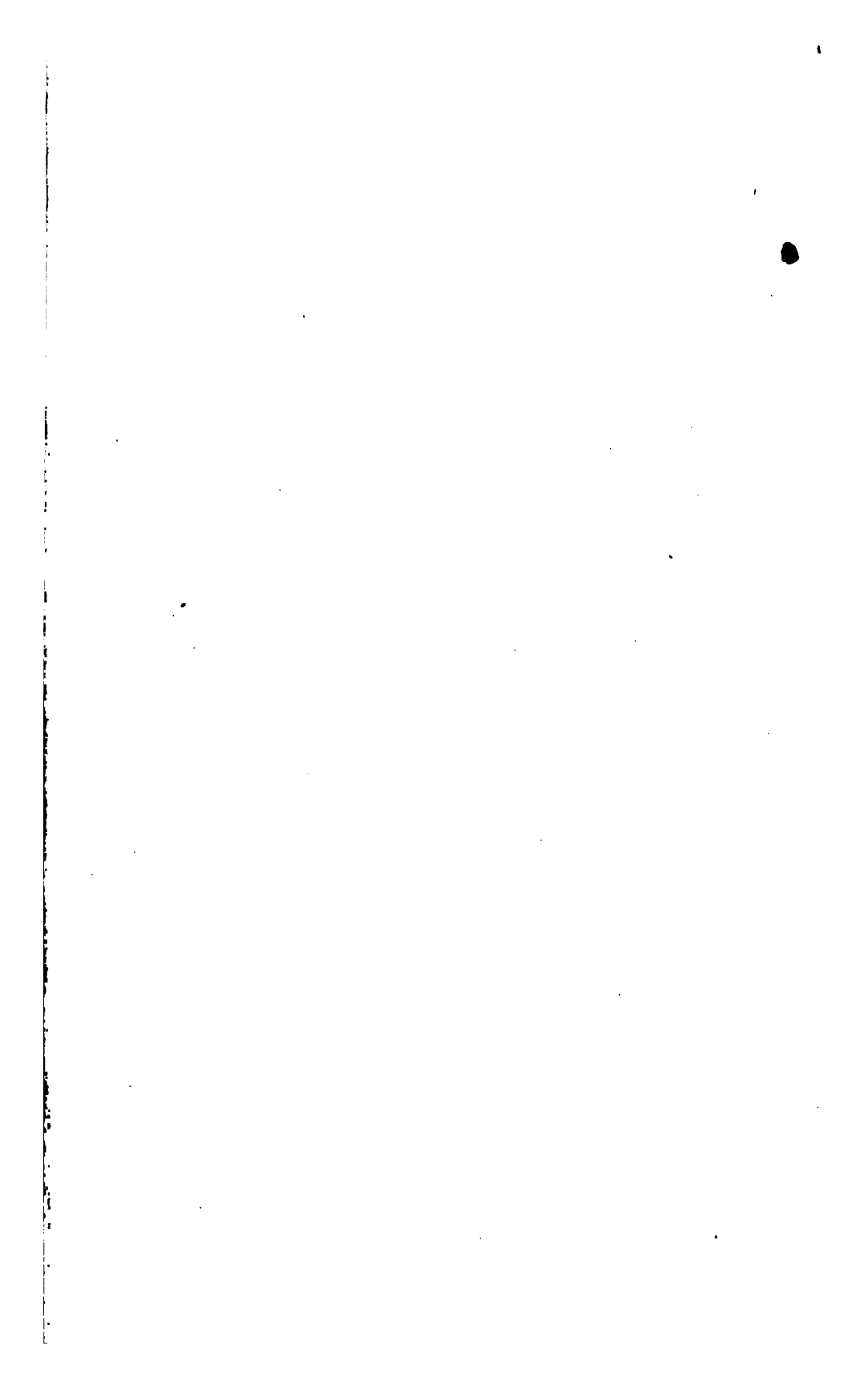
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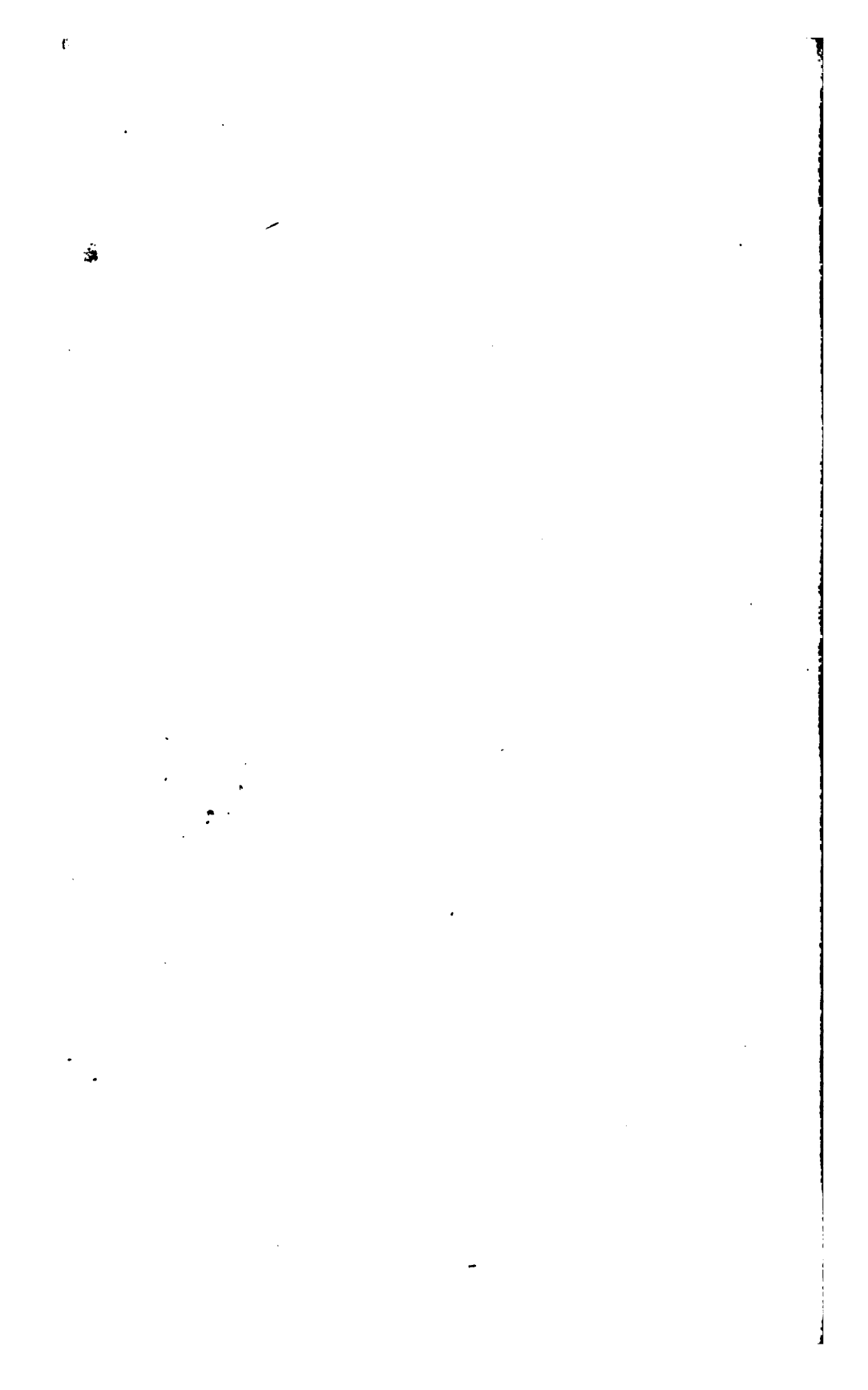
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